NAVAL POSTGRADUATE SCHOOL

MONTEREY, CALIFORNIA

THESIS

ENVIRONMENTAL PROTEST AND CIVIL SOCIETY IN CHINA

by

Megan L. McCulloch

September 2015

Thesis Advisor: Anne Baylouny
Co-Advisor: Christopher Twomey

Approved for public release;distribution is unlimited

THIS PAGE INTENTIONALLY LEFT BLANK

REPORT DOCUMENTATION PAGE			Form Approved OMB No. 0704-0188

Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instruction, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188) Washington, DC 20503.

1. AGENCY USE ONLY *(Leave blank)*	2. REPORT DATE September 2015	3. REPORT TYPE AND DATES COVERED Master's thesis

4. TITLE AND SUBTITLE
ENVIRONMENTAL PROTEST AND CIVIL SOCIETY IN CHINA

5. FUNDING NUMBERS

6. AUTHOR(S) McCulloch, Megan L.

7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)
Naval Postgraduate School
Monterey, CA 93943-5000

8. PERFORMING ORGANIZATION REPORT NUMBER

9. SPONSORING /MONITORING AGENCY NAME(S) AND ADDRESS(ES)
N/A

10. SPONSORING / MONITORING AGENCY REPORT NUMBER

11. SUPPLEMENTARY NOTES The views expressed in this thesis are those of the author and do not reflect the official policy or position of the Department of Defense or the U.S. Government. IRB Protocol number ____N/A____.

12a. DISTRIBUTION / AVAILABILITY STATEMENT
Approved for public release;distribution is unlimited

12b. DISTRIBUTION CODE

13. ABSTRACT (maximum 200 words)

The leadership of the Chinese Communist Party (CCP) appears to have conceded that environmental issues are an area in which people may publicly challenge governmental and commercial actions; however, the movement does not yet appear to have undergone a significant, positive change of scale. This thesis proposes that, as the environmental movement continues to grow in size and legitimacy, the CCP will continue to co-opt these protests, using them to maintain its political monopoly. Yet, the increased dissemination of information may slowly allow China's civil society to coalesce and reach past local barriers. This research takes a closer look at environmental protests reported over a ten-year timespan, where they occurred, the issues protested, and whether they have affected Chinese society and politics. Due to an inability to access primary sources on Chinese protests, this thesis covers only some of the broad, macro-level trends visible through the lens of these secondary sources. Nevertheless, it concludes that the number of reported incidents of protest is growing, and their influence is felt throughout civil society.

14. SUBJECT TERMS
China, environmentalism, social movement theory, civil society, Chinese environment, environmental movements, protest, contentious politics

15. NUMBER OF PAGES 141

16. PRICE CODE

17. SECURITY CLASSIFICATION OF REPORT	18. SECURITY CLASSIFICATION OF THIS PAGE	19. SECURITY CLASSIFICATION OF ABSTRACT	20. LIMITATION OF ABSTRACT
Unclassified	Unclassified	Unclassified	UU

NSN 7540-01-280-5500 Standard Form 298 (Rev. 2-89)
Prescribed by ANSI Std. 239-18

THIS PAGE INTENTIONALLY LEFT BLANK

Approved for public release;distribution is unlimited

ENVIRONMENTAL PROTEST AND CIVIL SOCIETY IN CHINA

Megan L. McCulloch
Lieutenant, United States Navy
B.S., United States Naval Academy, 2009

Submitted in partial fulfillment of the
requirements for the degree of

MASTER OF ARTS IN SECURITY STUDIES
(FAR EAST, SOUTHEAST ASIA AND THE PACIFIC)

from the

NAVAL POSTGRADUATE SCHOOL
September 2015

Approved by: Anne Baylouny
Thesis Advisor

Christopher Twomey
Co-Advisor

Mohammed M. Hafez
Chair, Department of National Security Affairs

THIS PAGE INTENTIONALLY LEFT BLANK

ABSTRACT

The leadership of the Chinese Communist Party (CCP) appears to have conceded that environmental issues are an area in which people may publicly challenge governmental and commercial actions; however, the movement does not yet appear to have undergone a significant, positive change of scale. This thesis proposes that, as the environmental movement continues to grow in size and legitimacy, the CCP will continue to co-opt these protests, using them to maintain its political monopoly. Yet, the increased dissemination of information may slowly allow China's civil society to coalesce and reach past local barriers. This research takes a closer look at environmental protests reported over a ten-year timespan, where they occurred, the issues protested, and whether they have affected Chinese society and politics. Due to an inability to access primary sources on Chinese protests, this thesis covers only some of the broad, macro-level trends visible through the lens of these secondary sources. Nevertheless, it concludes that the number of reported incidents of protest is growing, and their influence is felt throughout civil society.

THIS PAGE INTENTIONALLY LEFT BLANK

TABLE OF CONTENTS

I. INTRODUCTION 1

A. CIVIL SOCIETY IN CHINA 2

B. LITERATURE REVIEW 9

1. Social Movement Theory 9

2. Environmental Activism and NGOs in China 14

C. PROBLEMS AND HYPOTHESES 16

D. METHODS AND OUTLINE 17

II. CHINESE CIVIL SOCIETY AND ENVIRONMENTAL LEGISLATION: 1980–2014 19

A. CHINESE CIVIL SOCIETY AND THE EVOLUTION OF ENVIRONMENTAL REGULATIONS 19

1. The Years 1980–1989 21

a. Civil Society 22

b. Environmental Regulations 23

2. The Years 1990–1999 25

a. Civil Society 25

b. Environmental Regulations 28

3. The Years 2000–2014 28

a. Civil Society 29

b. Environmental Regulations 31

B. ENVIRONMENTAL ORGANIZATIONS, SOCIAL MEDIA, AND CASE STUDIES 33

1. Environmental Activists 33

a. Environmental Non-government Organizations 34

b. Online Activists 37

2. A Case Study 38

C. CONCLUSION 41

III. ENVIRONMENTAL PROTEST IN CHINA: BY THE NUMBERS 43

A. OVERARCHING TRENDS IN CHINESE ENVIRONMENTAL PROTESTS 44

1. Data Characteristics 45

2. Data Trends 51

B. PROTESTS IN COMPARISON TO DEMOGRAPHIC AND ECONOMIC DATA 53

1. Distance from Beijing (Political Control) 53

2. Internal Migration 55
3. Levels of Environmental Degradation 57
4. Economic Explanations 59
C. CONCLUSION 63

IV. CHINA'S ENVIRONMENTAL PROTESTS, FOLLOWING THE PATTERN 65
A. SOCIAL MOVEMENT THEORY WITH CHINESE CHARACTERISTICS.....65
B. CHINA'S GROWING ENVIRONMENTAL MOVEMENT 69
1. Issues: Why Are the Chinese Protesting? 71
2. Political Opportunity: When and Where Are the Chinese Protesting? 75
3. Framing and Tactics: How Are the Chinese Protesting? 78
C. CONCLUSION 79

V. CONCLUSION 81
A. CHINA, 2015 82
B. FURTHER RESEARCH.....84
C. CIVIL SOCIETY AND ENVIRONMENTAL ACTIVISTS 86

APPENDIX. FIGURE/TABLE SOURCE DATA.....89
A. EXPLANATION OF DATA CODING.....89
B. DATA SETS 91

LIST OF REFERENCES.....107

INITIAL DISTRIBUTION LIST 123

LIST OF FIGURES

Figure 1. Major Over-arching Categories of Environmental Protests.....45
Figure 2. Air Pollution Protests Divided into Major Subcategories.....46
Figure 3. Soil Pollution Protests Divided into Major Subcategories 48
Figure 4. Water Pollution Protests Divided into Major Subcategories 49
Figure 5. Protests Over Time (2005–2014, 2015).....51
Figure 6. Size of Protests by Year 52
Figure 7. Map of China's Internal Migration 1990–1995 and 2006 56
Figure 8. Map of Cancer Village Locations versus Sites of Protest.....58
Figure 9. Acid Rain (Left) and Coastal Water Quality (Right).....59
Figure 10. Economic Data Maps of China 60
Figure 11. Income versus Population 61
Figure 12. Industrialization 62
Figure 13. Unemployment Percentage versus Protests 63
Figure 14. Map of Industries 100

THIS PAGE INTENTIONALLY LEFT BLANK

LIST OF TABLES

Table 1. Distances (in miles) from Beijing to the Provincial Capital 54
Table 2. Chinese Environmental Protests (2005–2014).....91
Table 3. Protests Data Points (2015).....101
Table 4. Population and Economic Statistics.....103
Table 5. Protests by Location and Year 104
Table 6. Protests by Size and Year 105

THIS PAGE INTENTIONALLY LEFT BLANK

LIST OF ACRONYMS AND ABBREVIATIONS

CCP	Chinese Communist Party
ENGO	Environmental Non-government Organization
EPB	Environmental Protection Bureau
FON	Friends of Nature
GONGO	Government Organized Non-governmental Organization
GRP	Gross Regional Product
INGO	International Non-government Organization
IPE	Institute of Public and Environmental Affairs
MEP	Ministry of Environmental Protection
MNC	Multi-national Company
NEPA	National Environment Protection Agency
NGO	Non-government Organization
NIMBY	Not In My Backyard
PM2.5	Particulate matter in the air 2.5 microns or less in diameter
PM10	Particulate matter in the air 2.5–10 microns in diameter
PNEU	Popular Non-Enterprise Units
PX	Paraxylene (a chemical in polyester fabric and plastic bottles)

THIS PAGE INTENTIONALLY LEFT BLANK

ACKNOWLEDGMENTS

First and foremost, I would like to thank my advisors, Ann Baylouny and Christopher Twomey, for their encouragement and support in exploring a topic outside the traditional realm of traditional security study concerns. Their guidance was instrumental in helping to direct my research, and I am greatly appreciative of their feedback, guidance, and time spent assisting me.

I also owe an immense amount of appreciation to all to the talented coaches at the Naval Postgraduate Writing Center who have supported me throughout my time at the Naval Postgraduate School, with special thanks to Marianne Taflinger. Without the coaches' advice and support, this thesis would not have developed into the polished product that it is today. Thanks are also due to all of my professors in the National Security Affairs department, particularly Alice Miller, Naazeen Barma, Dan Moran, Jessica Piambo, Michael Malley, Robert Weiner, and Helen Anderson, who have all helped to shape my growth and development as a graduate student, and helped me to narrow my various good ideas into a writable thesis. I am fortunate to have had the opportunity to study at an institution where there is a significant collection of knowledge and talent. I am confident that I will be able to apply the lessons learned not only to future research and studies but also to my military career.

Last, but certainly not least, I want to thank my family and friends, whose love and support has been immeasurable. Without them, this thesis would not have been possible.

THIS PAGE INTENTIONALLY LEFT BLANK

I. INTRODUCTION

China is a semi-authoritarian country well known in the West for its censorship and poor human rights record, yet despite these realities, the number of street protests is growing. Many of these protests focus on the environment and center on not-in-my-backyard (NIMBY) issues. Why does the Chinese central government allow these environmental protests, sometimes even siding against local authorities who back the projects? Further, even as some environmental concerns are vehemently protested, others—such as air quality in Beijing or the poor water quality of China's waterways—seem less contentious. Why do some projects draw hundreds or thousands of protestors while others quietly die out?

Arguably, the environment as an issue appears less threatening to the CCP's political legitimacy than many other issues of potential social mobilization, such as labor disputes or land seizure and relocation.[1] In part, this may explain why the government appears tolerant of environmental activism and protests against local governments or individual companies.[2] Several of these environmental protests have recently resulted in government concessions,[3] but at other times and locations, the government has held firm.[4] Where are protests occurring? Why are they reported more frequently in some locations, but less in others? Are environmental protests succeeding in a way that individuals will be emboldened beyond environmental issue? Does the growth of reported protests indicate a more active and visible civil society in China? This thesis will address these important questions.

---

[1] Liu Jianqiang, "China's New 'Middle Class' Environmental Protests," *ChinaFile*, January 2, 2013, http://www.chinafile.com/chinas-new-middle-class-environmental-protests.

[2] "Volatile Atmosphere," *Economist*, April 4, 2014, http://www.economist.com/blogs/analects/2014/04/environmental-protest-china.

[3] Samuel Wade, "Protests Win Written Pledge of Uranium Plant's Cancellation," *China Digital Times (CDT)*, accessed November 7, 2014, http://chinadigitaltimes.net/2013/07/protests-win-written-pledge-of-uranium-plants-cancellation/.

[4] Austin Ramzy, "Chinese Environmentalists Lose Fight to Stop Nu River Dams," *TIME*, accessed November 7, 2014, http://world.time.com/2013/02/05/chinese-environmentalists-lose-fight-to-stop-nu-river-dams/.

If civil society is growing more confident, will this more vibrant civil society continue to support the government or will growing confidence lead to challenging the political legitimacy of current leaders? In post-Soviet Eastern Europe, the environmental movements served as "an alternative channel for popular protest against the communist regimes."[5] Multiple organizations and philosophies coalesced under the banner of environmentalism. These social movements then "acted as a catalyst for a wider democratization…that toppled autocratic regimes";[6] however, once the movements had successfully overthrown the government, the movements lost momentum.[7] It took years for the environmental movement to reappear as a more focused and professional movement. In contrast, the environmental movement in China remains fragmented and localized but is increasingly focused, if only on local issues, and professional. The further development of larger networks and national protests might be one indicator of a major shift in the Chinese political environment.[8] The environmental movement in China appears to be developing in reverse of the development of similar movements in Eastern Europe.[9] This chapter describes the history and theory of civil society in early China; offers a brief literature review of social movement theory and China's environmental activism; and explains the general problem and hypothesis of this thesis.

A. CIVIL SOCIETY IN CHINA

Economic growth in China over the last two or more decades has given rise to a new Chinese middle class. Despite a growing and increasingly affluent middle class, the population has chosen political quiescence, focusing instead on the environment and right to private property.[10] Since the 1989 student demonstrations, no major opposition to the

---

[5] Peter Ho, "Greening Without Conflict? Environmentalism, NGOs and Civil Society in China," *Development and Change* 32, no. 5 (November 1, 2001): 896, doi:10.1111/1467-7660.00231.

[6] Peter Ho and Richard Louis Edmonds, "Perspectives of Time and Change: Rethinking Embedded Environmental Activism in China," *China Information* 21, no. 2 (July 1, 2007): 332, doi:10.1177/0920203X07079649.

[7] Ibid., 338.

[8] Ibid., 339.

[9] Ibid., 338.

[10] "The Other Moore's Law," *The Economist*, February 12, 2009, http://www.economist.com/node/13063306.

Chinese state has confronted the status quo. The lack of opposition can be confused with a lack of civil society, but while civil society in China is localized, disconnected, and has chosen not to directly challenge the state's political legitimacy, it does exist. The growing development of civil society appears to be tolerated and even encouraged in specific, limited segments of society. This limited sphere includes social welfare, the environment, and other sectors where the government has chosen to withdraw from direct management. This section briefly traces and compares the concept of civil society through both the West and in Confucian society.

Civil society is a vague concept often conjuring varying interpretations and impressions. The earliest concept of civil society comes from the ancient Greeks who envisioned a society "in which the law [bound] state and citizens together and they exercise[ed] the 'virtue of civility,' the hallmark of good citizenship."[11] Using this definition, "'civility' means moderating particular, individual, or parochial interests and giving precedence to the common good."[12] The idea of "good citizenship" and "civility" contrasts with the modern understanding of civil society, which "reflects the desire to curb the power of overweening states through a sphere of social organizations enjoying more or less autonomy from the state."[13] The study of Western civil society is "an attempt to define a type of relationship between state and society," separating the state and society into two separate and distinct areas containing definable boundaries with a specifiable relationship.[14] "Civil society" often refers to the area between these two spheres and "denotes an associational realm in which autonomous organizations are formed through voluntary association to represent the interests and aspirations of members of society."[15] Though the modern concept of civil society has drastically shifted from the original conception in the West, the shift has been less dramatic in China.

---

[11] Timothy Brook and B. Michael Frolic, eds., *Civil Society in China*, Studies on Contemporary China (Armonk, NY: M.E. Sharpe, 1997), 51.

[12] Ibid.

[13] Gordon White, "Prospects for Civil Society in China: A Case Study of Xiaoshan City," *The Australian Journal of Chinese Affairs*, no. 29 (January 1, 1993): 64, doi:10.2307/2949952.

[14] Ibid.

[15] Ibid.

Contrary to the Western notion of civil society, which focuses on the individual and seeks to separate state and society, Chinese civil society can be viewed as an intermediary between society and the state.[16] Closer to the early Greek concept of civil society, Chinese civil society flows from Confucian traditions of harmonization which "favors harmonizing the individual with society, and doing so within the larger moral good of harmonizing society with the state."[17] The concept of "good citizenship" can be seen in the recently revived Confucian view of harmony.[18] Echoes of "civility" can be seen in the East Asian concept of corporatism. This tradition of corporatism "stresses the vertical integration of ordinary people who surrender their political voice to their elites…[and] has been a characteristic structure of Chinese society in the imperial period and beyond."[19] Under the combined auspices of harmonization and corporatism, the "Chinese have recurrently formed communities that are neither under the direction of the state nor bound to such state functions as revenue extraction,"[20] thus meeting the modern strictures of being autonomous and voluntary. These associations are not always recognized as such, because they are often formed "out of [the state's] sight and, sometimes in tandem with (even in cooperation with) state interventions at the local level."[21]

Although Chinese civil society more closely resembles the Greek concept than the modern Western concept, it also shows elements of the modern definition. Separating civil society into distinct categories and then comparing each category to China, one can clearly see both similarities and differences. Although not all-inclusive, one way to examine the Western concept of civil society is to break it into three distinct categories: political society, mass organizations in opposition to the state, and intermediate social

---

[16] Philip C. C. Huang, "'Public Sphere'/'Civil Society' in China?: The Third Realm between State and Society," *Modern China* 19, no. 2 (April 1, 1993): 225.

[17] Brook and Frolic, *Civil Society in China*, 43.

[18] Ian Johnson, "Hu Jintao Takes U.S. a Message of Harmony," *New York Times*, January 18, 2011, sec. World / Asia Pacific, http://www.nytimes.com/2011/01/19/world/asia/19hu.html.

[19] Brook and Frolic, *Civil Society in China*, 23.

[20] Ibid., 22.

[21] Ibid.

associations.[22] The first category, political society, focuses on the ability and inclination of a society toward democratization, particularly along liberal lines.[23] The focus on liberalization and democratization is threatening to the CCP; therefore, any organization that gains prominence that might challenge the status quo, such as the China Democratic Party, is immediately shut down.[24] This aspect of civil society is not a part of current Chinese society, and may not develop until there is a drastic change in political environment. Similar to political society, mass organizations in direct and open opposition to the state are also lacking in China. Organizations that gain enormous popularity or are perceived a threat to the state draw the most notice from the state. These organizations are then severely restricted or ruthlessly suppressed.

The final category, intermediate social associations, is the most inclusive of the categories and loosely stems from a Hegelian model of society, which focuses on familial or relational ties formed in society.[25] These ties include lawful organizations, unlawful organizations such as gangs or triads, and the so-called "bourgeois society," which rises alongside a market economy and is "linked to the world of cities or towns."[26] While, historically, bourgeois society has been absent in China, there was a temporary growth of associations under the early twentieth century growth of cities and market forces, until the devastation of war and the rise of the CCP delayed the advent of such a group until the end of the twentieth century.

In China, the intermediate social association definition, specifically associations and ties that form between state and society, blends into the Confucian traditions of harmonization. These ties form a relational "third realm" between the state and the private sphere.[27] This relational third realm is in direct opposition to the Western notion

---

[22] White, "Prospects for Civil Society in China," 65–7.

[23] Ibid., 65–6.

[24] Elizabeth C. Economy, *The River Runs Black: The Environmental Challenge to China's Future, Second Edition* (Cornell University Press, 2004), 133–4.

[25] White, "Prospects for Civil Society in China," 66.

[26] Ibid., 60.

[27] Huang, "'Public Sphere'/'Civil Society' in China?," 225.

of civil society that "presupposes a dichotomous opposition between state and society."[28] Because the evolution of civil society in the West evolved in the contested area between state and society, it grew when in opposition to the state.[29] The Western understanding of civil society shifted during the creation of nation-states in Europe and society is now seen as superior to the state; such superiority theoretically leads to democracy.[30] The concept of civil society competing against the state leading to democracy was further entrenched in social science theory during the revolutions of the late-1990s in the post-Soviet states.[31]

Instead of a radical shift away from the Greek concepts of "good citizenship" and "civility" in the West, traditional Chinese civil society developed as an intermediary with the goal of harmonization that continues today. This concept can be seen in both the legal system and local administration. National state control throughout Chinese history has often been weak. Therefore, during the Imperial era, local elites were given specific tasks, primarily collecting taxes and providing public service, in return for status and served as the foundation for this intermediary role.[32] Similarly, the Imperial court system, specifically civil adjudication, was often handled before it actually reached the courts. If private mediation between friends or family failed, the plaintiff would file suit and then in a semi-open forum of the town or village the judges would discuss the suit.[33] These discussions, which often led to a successfully mediated settlement, focused on compromise conducted via mediation rather than an institutionalized process.[34] Because this tradition of private mediation often involved the entire town and worked outside the Imperial court system, civil society developed in the space between state and society. The goal was to work out differences and arrive at a harmonious compromise before involving the state.

---

[28] Ibid., 216.

[29] Ibid., 219.

[30] Brook and Frolic, *Civil Society in China*, 23.

[31] Ho and Edmonds, "Perspectives of Time and Change," 332.

[32] Huang, "'Public Sphere'/'Civil Society' in China?," 227.

[33] Ibid., 226–7.

[34] Ibid.

As the Qing government collapsed and gave way, first, to a Republic, and then Warlordism, an urban market economy evolved. As the market economy began to emerge, people flocked to towns and cities where new associations grew and were normalized.[35] During this period civil society flourished, not in opposition to the state, but rather complementarily, due to a lack of state capacity. The Republican period also saw many political organizations formed and a nascent political society was developed for a brief span.[36] It was these budding associations that were later shut down and destroyed under Mao. In 1949, many of the civil society organizations that had survived the war and focused on charity and reconstruction were either coopted by the Party or shutdown once the CCP was entrenched.[37]

Since the start of the reform and opening era under Deng Xiaoping in 1978, civil society has grown to fill the emerging gaps between the state and the individual. This has usually taken the form of "official" organizations, controlled and led by Party cadre and funded from the state; "semi-official" organizations that often take advantage as personal or guanxi networks; or "purely popular" organizations.[38] The first two categories of organization form a second style of civil society not often recognized, and best described as state-led civil society. "State-led civil society unites two strands of authoritarian politics: those of the socialist authoritarian state in transition, and those of the ascendant East Asian communitarian state."[39] Chapter II will trace the history of civil society in modern China.

The final category, purely popular organizations, includes organizations that are mainly autonomous but subject to a variety of regulations. Such organizations include non-governmental organizations (NGOs). In China, the evolution of NGOs, especially environmental non-government organizations (ENGOs), have been an exercise of two steps forward and one step back. During the reform era, in the mid-1970s a small scale

---

[35] Ibid., 229.

[36] Brook and Frolic, *Civil Society in China*, 41.

[37] Karla W. Simon, *Civil Society in China: The Legal Framework from Ancient Times to the New Reform Era* (New York: Oxford University Press, 2013), 146.

[38] White, "Prospects for Civil Society in China," 75.

[39] Brook and Frolic, *Civil Society in China*, 56.

effort at environmental protection began, but the level of decentralization allowed provincial and local elites to focus on economic concerns without concern for environmental issues. The integration into the global economy further exacerbated the problem as heavy industries relocated to take advantage of cheap labor and areas with loose regulation.[40]

As the economy grows, Chinese civil society is slowly becoming both more recognizable to Western observers and more willing to confront the government. Some of the new willingness to seek confrontation is a result of changing social norms and a newly entitled generation of bourgeois Chinese middle class.[41] As society becomes more empowered, people may gain greater confidence in their ability to confront the government and succeed. By confronting the government only in areas that are not overtly political, "embeddedness buys time for civic organizations to consolidate and institutionalize."[42] Whether this strategy is intentional or simply a product of the system, it appears to be working. "Contrary to the vision of [Western] public sphere/civil society models, actual sociopolitical change in China has really never come from any lasting assertion of societal autonomy against the state, but rather from the workings out of state-society relations."[43] Therefore, China's embedded environmentalism has developed as a negotiated symbiosis between the state and environmentalists carved out by understanding that the state and society are not in direct conflict and specifically within the context of the environmental movement, embeddedness serves an example Huang's "third realm."[44] This negotiated interaction, embeddedness, or "third realm" between state and society has largely developed due to the semi-authoritarian nature of the Chinese state.[45]

---

[40] Economy, *The River Runs Black*, 63.

[41] "Beneath the Glacier," *Economist*, April 12, 2014, http://www.economist.com/news/china/21600747-spite-political-clampdown-flourishing-civil-society-taking-hold-beneath-glacier.

[42] Ho and Edmonds, "Perspectives of Time and Change," 338.

[43] Huang, "'Public Sphere'/'Civil Society' in China?," 238.

[44] Ibid., 223–6.

[45] Ho and Edmonds, "Perspectives of Time and Change," 334.

B. LITERATURE REVIEW

The semi-authoritarian nature of the Chinese state and its integration into the international system are constant sources of speculation and interest. A relatively recent period of reinvigorated scholarship is beginning to focus on modern China's civil society and growing concern in regards to the global environment is focusing increased attention on China's environmental policies. The focus of this thesis is on the modern development of civil society and environmentalism in China and the interaction between these two topics. To help explain the interaction between the nascent environmental movement and the broader civil society, this thesis uses the framework of qualitative data analysis and its relation to the broader social movement theory framework.

The following sections will follow introduce some of the broader theories and literature that underpins this thesis. First, the section on social movement theory will focus on the broader definitions and theories regarding why people protest. While social movement theory looks at general, universal theories behind why people protest, the second section, on environmental activism, focuses on the tools that are unique in China. Chapter II will than trace the evolution of both environment regulations and Chinese civil society in greater detail.

1. Social Movement Theory

Social movement theory covers a variety of movements under all types of governments. This thesis focuses on the growing social movement under China's semi-authoritarian regime, particularly how it formed despite state opposition. As the world grows increasingly connected and people are better able to overcome the barrier of physical distance, the CCP must walk a fine line between coercion and incentive when dealing with social movements.

People may protest for a variety of reasons and against a variety of injustices, real or perceived. The stated reason for a protest must resonate with protestors, but the cause

may simply be an excuse to rally when the true grievance is believed to be unassailable.[46] As a society changes and comes under internal pressure, mobilization against one perceived injustice often serves as an outlet for an underlying issue that either cannot be expressed or properly demonstrated against.[47] Such changes or pressures can include a change of population demographics or economic uncertainty.[48]

In order to be considered a social movement there are four elements required: organization, temporal continuity, change-oriented goals, and extra-institutional action (protest, riot, etc.).[49] The degree of organization required may be low, but to be considered a movement, there must be people working in concert with each other and connected, not solely acting "in a parallel but disconnected manner,"[50] which would describe social trends such as industrialization or urbanization.[51] The condition of temporal continuity is used to separate singular protests or riots from movements, which assume a series of related actions.[52]

Although the third condition is change-oriented goals, the level or change of scale is not fixed to a specific threshold but a continuum of change. At their most fundamental level, all organizations can be divided into one of two categories, norm-oriented or value-oriented. "Norm-oriented movements are concerned with producing more limited but specific changes within a social system"[53] and will often attempt to work from within the system, pushing boundaries and resorting to extra-institutional action only as a last result. By contrast, value-oriented movements are "concerned with more fundamental change,

---

[46] Nella Van Dyke and Sarah A. Soule, "Structural Social Change and the Mobilizing Effect of Threat: Explaining Levels of Patriot and Militia Organizing in the United States," in *Readings on Social Movements: Origins, Dynamics and Outcomes*, ed. Doug McAdam and David A. Snow, 2nd ed. (New York: Oxford University Press, 2010), 40.

[47] Ibid.

[48] Ibid., 41.

[49] Doug McAdam and David A. Snow, eds., *Readings on Social Movements: Origins, Dynamics and Outcomes*, 2nd ed. (New York: Oxford University Press, 2010), 1.

[50] Ibid., 3.

[51] Ibid.

[52] Ibid., 5.

[53] Ibid., 2.

and thus seek to alter basic values and the institutional bedrock on which they rest."[54] Examples of value-oriented movements include most revolutions and civil rights movements.

A more granular way of dividing social movements orients them across two axes: scale and scope of change. Scale refers to the focus of movement on the individual or society, while scope refers to the goals of a movement, limited or total. These two axes are combined into four types of movement. An alternative movement is one that "seek[s] partial change in individuals"[55] and is best illustrated by the U.S. self-help movement. A redemptive movement also focuses on individuals but seeks total vice limited change (i.e., cults).[56] A reformative movement is one that seeks to change society but only in a limited manner, challenging a specific and limited perceived wrong, such as the feminist movement, the LGBT movement, etc.[57] The final and most all-encompassing category is the transformative movement, which may also be called a revolution.[58]

While the scope of a movement may be claimed to be either limited or total, the practical scope of a movement's influence is developed through interaction between participants and the state or another authority. According to Charles Tilly, in order for a movement to form there must be either political opportunity or credible threat. Opportunity is defined as "the likelihood that challengers will enhance their interest or extend existing benefits if they act collectively,"[59] and threat is "the probability that existing benefits will be taken away or new harms inflicted if challenging groups fail to act collectively."[60]

---

[54] Ibid.

[55] Ibid.

[56] Ibid., 3.

[57] Ibid.

[58] Ibid.

[59] Paul D. Alameida, "Opportunity Organizations and Threat-Induced Contention: Protest Waves in Authoritarian Settings," in *Readings on Social Movements: Origins, Dynamics and Outcomes*, ed. David A. Snow and Doug McAdam, 2nd ed. (New York: Oxford University Press, 2010), 106–7.

[60] Ibid.

This combination of opportunity and the impending increased threat (in the face of inaction) appears especially clear in the Chinese environmental movement. This clear calculation is particularly viable on environmental issues where, should the protesters "win," they will gain a tangible benefit, but a loss will have a high probability of severe consequences (unbreathable air, polluted water, etc.). Each successful protest empowers the next and individuals gain greater confidence in their ability to confront the government and succeed. The government has recently signaled an opportunity for mobilization in recent speeches by calling for a "war on pollution,"[61] granting activists new avenues by which to protest while remaining within the system.[62]

Finally, a social movement must include some level of extra-institutional action or it is no different from an interest group. Both social movements or interest group may be embedded within the system, but an interest group is typically regarded as a legitimate actor within the system and refrains from extra-institutional actions. Conversely, a social movement's standing within the given system is more precarious and may require extra-institutional actions to force issues or draw attention to desired changes.[63] Such extra-institutional actions will be by necessity collective in nature, as single individuals often do not have the bargaining power to affect change alone.[64]

Angry Chinese citizens are increasingly willing to turn to extra-institutional measures in order to be heard, but the majority of Chinese environmentalists prefer apolitical, embedded methods. "Embedded activism," one of the strongest characteristics of the Chinese environmental movement, allow activists to challenge the government, particularly vis-à-vis upholding its own laws.[65] By confronting the government only on issues such as the environment, which the government has signaled as an area of

---

[61] Elizabeth C. Economy, "China Wakes Up to Its Environmental Catastrophe," *Bloomberg Business*, March 13, 2014, http://www.businessweek.com/articles/2014-03-13/china-wakes-up-to-its-environmental-catastrophe.

[62] "China Takes On Pollution With Biggest Changes in 25 Years," *Bloomberg*, April 24, 2014, http://www.bloomberg.com/news/2014-04-24/china-enacts-biggest-pollution-curbs-in-25-years.html.

[63] McAdam and Snow, *Readings on Social Movements*, 4.

[64] Ibid., 7.

[65] Ho and Edmonds, "Perspectives of Time and Change," 338.

opportunity, the embedded activist learns how to push boundaries and becomes more proficient at organizing civil society without challenging the government's political legitimacy. While one of the more dominant aspects of the Chinese environmental movement is its embeddedness, other characteristics align with the broader social movement literature.

Social movement theorists have four complimentary types of theories to describe social movements: rational response, state and market, moral outrage, and community justice. Rational response theory assumes riots or protests occur for rational reasons, varying directly with either economic hardship or a tangible injustice.[66] In the case of China, this would be evident if the number and size of protests occurred in direct relation to the level of environmental degradation. While protestors often have rational reasons for their actions, this theory fails to explain the timing or manner of some protests and the lack of protests in a similar case at a different time or location.[67]

A second theory focuses on the moral economy or moral outrage of a community in response to policy decisions. According to this theory, protests are triggered by a perceived injustice and the protestors' frame themselves as "defending traditional rights or customs"[68] and have the implicit support of their communities.[69] Moral outrage theory builds on the foundation of the rational response theory, focusing on a moral tipping point rather than economic want. While this theory offers a good addition to rational response theory, it still fails to address variations amongst different social class or geographic regions.[70] Moral outrage might help explain why people protests singular issues, such as the planning or building of a new factory, but do not protest the slow degradation of the air or water. New additions are a type of tipping point, where the status quo may not be acceptable but neither is it worth the risk of an active protest.

---

66 John Walton and David Seddon, *Free Markets & Food Riots: The Politics of Global Adjustment*, (Cambridge, MA: Blackwell, 1994), 31.

67 Ibid.

68 E. P. Thompson, *Customs in Common: Studies in Traditional Popular Culture* (New York: New Press, 1993), 188.

69 Walton and Seddon, *Free Markets & Food Riots*, 31; Thompson, *Customs in Common*, 188.

70 Walton and Seddon, *Free Markets & Food Riots*, 31–2.

Whereas the first two theories focus on individuals as the actors of protest, the final two theories change the actor, one looking at the community as the primary actor and the other the state. Community justice theory focuses on local communities as the primary actor of protests. In this type of protest, the dynamics focus on local patronage politics with protestors making concerted effects to "preclude challenge to the authority of local gentry"[71] that may increase the cost of protest or decrease the chance of success.[72] While necessary, the community justice theory is not sufficient because it fails to "explain cycles of protest over time and space,"[73] neglects societal or community conditions, and neglects to account for the forms of interaction.

The final theory, state and market theory, focuses on large-scale social or political changes. This theory is excellent for explaining why protests do or do not occur at the national level, but provides little clarity on the specific timing or location of protests within the nation. The structural factors and policy decisions at the national level may show how "causal conditions work at the national level and affect local settings to the extent that communities reflect broader processes."[74] The theory, however, does not explain "the meaning and processes that animate protest action"[75] nor does it provide linkage framework between the various levels. The four theories described are complimentary and depending on the scale or size of movement and illuminate different trends and aspects of a movement.

2. Environmental Activism and NGOs in China

The growing influence of civil society appears to be tolerated and even encouraged where the government is weakest. In 1992, "Chinese officials began to incorporate the ideal of sustainable development into their planning process; in some cases, this was merely rhetorical, but in others the language represented real policy

---

[71] Ibid., 33.

[72] Ibid., 33–4.

[73] Ibid., 33.

[74] Ibid., 34.

[75] Ibid., 35.

change."[76] This specifically referred to the reintroduction and legalization of NGOs.[77] The fear of strong opposition remains, however, so the CCP has permitted the number of NGOs to grow while simultaneously continuing to limit operations.[78] "By 2002 there were 230,000 officially registered NGOs…And if one attempts to account for NGOs that are not registered with the government, the number by some accounts is as high as two million."[79] These organizations, often created to address social concerns, are generally welcomed by government officials and "are somewhat reminiscent of organizations that appeared during the republican period, when religious groups, literary societies, and relief organizations emerged and prospered"[80] until war with Japan led to a crackdown on autonomous organizations. This cycle was repeated during the early 1980s with opening economic reforms until autonomous organizations were again suppressed in the wake of Tiananmen. Post-Tiananmen, one of the greatest concerns for the CCP was that existing NGOs would serve to provide a safe haven for intellectuals to gather under legal auspice and their ideologies and anti-government leanings would ferment and grow, like a disease.[81]

As with other areas of China's development, the toleration and understanding of NGOs appears to be working along a type of dual system in which individuals or organizations can create and register NGOs, but the government will also create Government Organized Non-governmental Organizations (GONGOs), which "are simply tools by which government agencies may take advantage of the desire of foreign governments and international NGOs to support the NGO movement and civil society in China."[82] While most GONGOs will remain dependent on the governmental aspects of a *governmental* organized non-governmental organization, some may eventually evolve into truly self-sufficient *non-governmental* organizations. Others develop a symbiotic

---

[76] Economy, *The River Runs Black*, 99.

[77] Ibid.

[78] Ibid., 134.

[79] Ibid., 132.

[80] Ibid.

[81] Ibid.

[82] Ibid., 135.

relationship between NGOs and the related GONGO, or to serve as a bridge between the government and NGOs.

The concept of GONGOs or state-led societal organizations is useful for explaining how NGOs gain influence against a semi-authoritarian state. Working through GONGOs, individuals do not attack the state directly but lobby from within the system.[83] Working from within the system may be slower than confronting the state directly, or appear too mild, but such confrontations against even a semi-authoritarian government are dangerous.[84] A negotiated interaction between state and society has largely developed due to the semi-authoritarian nature of the Chinese state.[85]

The literature on civil society and environmental policy is growing and as the concern over China's future and its environment continue to grow, so will the available works. Yet, much of the scholarly literature is concerned either solely with civil society, the growth of environmentalism, or with how Chinese environmentalists are working within the system to gradually influence change. The most recent literature focuses on China's environmental concerns and discusses the government's response and policies or focuses on single provinces or issues and comparative case. This thesis uses many of those articles, both scholarly and journalistic, to study the protests and their effect on environmentalism, civil society, and the evolution of a Chinese environmental movement.

C. PROBLEMS AND HYPOTHESES

The CCP appears to have conceded environmental issues as an area in which people may challenge commercial and governmental actions;[86] however, the environmental movement may grow from its current limited scope to include broader issues at a national level. China's environmental protests are increasingly attracting attention from all levels of the Chinese government as well as from Western media, but

[83] Ho and Edmonds, "Perspectives of Time and Change," 336.

[84] Ho, "Greening Without Conflict?," 916.

[85] Ho and Edmonds, "Perspectives of Time and Change," 334.

[86] Ho, "Greening Without Conflict?," 915–16.

the movement does not yet appear to have undergone a significant change of scale. This thesis proposes that China's environmentalism has matured into a social movement focused solely on the environment and not on larger democracy concerns. As the movement continues to grow in size and legitimacy, the CCP will co-opt or repress these street protests, using them to maintain their political monopoly.[87] Although the government currently concedes some cases to protestors, each movement teaches skills to the organizers that could eventually be used in against broader, more politically sensitive, issues.

Because environmental issues are so widespread in China, the more informed the public, the greater the likelihood of a protest. Increased dissemination outside official government channels may slowly allow China's civil society to coalesce and reach past local barriers. Each successful protest empowers and emboldens the next protest. My hypothesis is that China has developed a nascent environmental movement and that a more active and vibrant civil society will continue to support the state by working within the current political system. China's civil society will not confront the government directly nor morph into a democratic movement within the next ten years.

D. METHODS AND OUTLINE

The following chapters take a closer look at recent environmental protests, where they occurred, the issues protested, and if they have affected Chinese society and politics. Due to an inability to access primary sources on Chinese protests, this thesis uses secondary sources and Western news accounts. Unfortunately, this introduces an inherent bias to the sample. Because of these limitations, this thesis will only cover some of the broad, macro-level trends visible through the lens of these sources.

To understand the context of environmental activism in China, Chapter II traces the history of Chinese civil society and environmental activism from Mao through the current government. Chapter II will also briefly introduce a few of the key organizations and individuals that are prominent or influential in the Chinese environmental movement. Chapter III will provide a broad overview of environmental street protest trends through

[87] "Beneath the Glacier."

qualitative analysis of the collected dataset. Chapter IV will use the qualitative data of Chapter III as a foundation before offering a high-level analysis of the Chinese environmental movement within the larger context of social movement literature. Finally, the conclusion will speculate on the effect of environmental protests on Chinese Civil Society.

II. CHINESE CIVIL SOCIETY AND ENVIRONMENTAL LEGISLATION: 1980–2014

The Chinese Communist Party (CCP) is obsessed with stability. The memories of the chaos of the Cultural Revolution and the trauma of watching Communist regimes fall in the early 1990s have left their mark on CCP leaders. These two events coalesced in the minds of reformers, 1980-present, to ensure that domestic stability and the primacy of the CCP formed the foundation for any reforms.[88] Although the Chinese economy has grown several orders of magnitude in the last three decades, the size and strength of civil society has not grown at the same pace. Instead, civil society's growth has been sporadic and incremental. A particularly distinctive and long lasting sphere of civil society is the environmental movement. While, today, the environmental movement is a global phenomenon, the strength and characteristics of each country's environmental movement is unique. In China, in comparison to other segments of civil society, the growth and resilience of the environmental movement has been particularly noteworthy. This chapter outlines the rediscovery of Chinese civil society starting in the 1980s, provides a brief overview of existing environmental legislation in China, introduces a few of the more influential individuals and organizations within China's green sphere, and describes the interaction between those groups and the government. The following overview is not meant to be either comprehensive or all-inclusive, but serve as a means of orientation to the limits, challenges, and advances made over the last three and a half decades.

A. CHINESE CIVIL SOCIETY AND THE EVOLUTION OF ENVIRONMENTAL REGULATIONS

Founded in 1949, the modern Chinese state or the People's Republic of China was modeled after the Stalin-Lenin model. There was little room for individuality and, under Mao, independent social organizations were either "outlawed or absorbed into the party-state system."[89] Civil society was temporarily eradicated and every aspect of daily life

[88] Sam Geall and Isabel Hilton, eds., *China and the Environment: The Green Revolution*, Asian Arguments (London: Zed Books, 2013), 6–7.

[89] Simon, *Civil Society in China*, 146.

became regulated.[90] Yet, unlike other Communist countries, Mao went further to push the idea of struggle in an attempt to banish the Confucian ideal of "Great Harmony." Mao's China forced people "to participate actively in government-sponsored campaigns"[91] and state approved associations. "Work units," or *danwei's*, controlled all aspects of social life in urban areas and the rural areas were managed through village farm collectives.[92] The government even attempted to regulate opinions via neighborhood watches and residence committees, which reported resident's opinions to administrative agencies and mobilized residents to respond to government calls.[93]

While no government can truly control personal opinion or thought, the PRC was remarkably able to regulate and censor publically expressed thoughts. Chinese Civil Society largely vanished after 1949, but the lowest point of civil society was the peak of the Cultural Revolution. During this period of Chinese history, teenagers roamed the country purging established social and bureaucratic structures, anarchy descended, and society unraveled.[94] Without a functioning state or society, civil society disappeared. By 1977, "both civil society and the legal system"[95] had collapsed. Still referenced today, this period of anarchy serves as one justification for the continued semi-authoritarian control of the modern state.

According to the revolutionaries who took over China in 1949, one of the country's greatest weaknesses was its lack of industry. Maoist thought posited that China could, with great effort and willpower, overcome the development gap and quickly rise as an industrial nation.[96] Mao either did not understand or cared little about the

---

[90] Ibid., 147.

[91] Elizabeth J. Perry, "Challenging The Mandate Of Heaven: Popular Protest in Modern China," *Critical Asian Studies* 33, no. 2 (June 2001): 164, doi:10.1080/14672710122544; Simon, *Civil Society in China*, 149–50.

[92] Bruce A. Elleman, *Modern China: Continuity and Change 1644 to the Present* (Upper Saddle River, NJ: Prentice Hall, 2010), 359–361.

[93] Simon, *Civil Society in China*, 179–180.

[94] Ibid., 370.

[95] Ibid., 182.

[96] Henry Kissinger, *On China*, (London: Penguin Books, 2012), 94–7, 183.

environmental consequences and faced nature as an enemy to be conquered.[97] This lack of understanding emerges in several of the mass campaigns. Of particular note, the "extermination of the Four Pests" was an exhortation to destroy sparrows, rats, mosquitoes, and flies.[98] Yet once the sparrows had been killed or driven away, the unbalanced ecosystem allowed numerous insects to flourish and destroy crops creating disastrous second and third order consequences—in this case contributing to the famine of 1959 to 1961.[99]

Even without civil organizations free of government control, by the 1970s, the lack of progress and signs of environmental degradation were apparent. With the reopening of China and exposure to the West's changing views on environmental policy, a gradual awareness of environmental issues and their importance to society began to emerge.[100] In 1978, "the Chinese constitution was amended to acknowledge concern for the environment, with the proviso that the state had to protect the environment and natural resources."[101] Although the words were added to the state constitution, they neither slowed nor changed the pace of development.

1. The Years 1980–1989

Despite this slight nod toward the environment, as Deng Xiaoping consolidated his control over the party, economic development remained the primary focus. As the early reformers began opening China's economy to the outside world, political advancement largely reflected success in development and coincided with a reliance on economic metrics.[102] The opening of the economy, although limited at first, also led to a revival of civil society.

---

[97] Economy, *The River Runs Black*, 48.

[98] Elleman, *Modern China*, 382.

[99] Ibid., 382–4.

[100] Economy, *The River Runs Black*, 97.

[101] Ibid., 99.

[102] Joseph Kahn and Jim Yardley, "As China Roars, Pollution Reaches Deadly Extremes," *New York Times*, August 26, 2007, http://www.nytimes.com/2007/08/26/world/asia/26china.html.

a. Civil Society

Deng Xiaoping's economic reforms allowed local leaders greater latitude and devolved economic controls to local and provincial governments.[103] The opening of space within which civil society could grow represented an unintended side effect of the Party's efforts to simultaneously maintain political control and economic decentralization. The need for increased labor forces in the coastal provinces drove many of these changes and led to a reduction of enforcement over the *hukou,* or house registration system.[104] Although officials allowed the relaxation of travel restrictions to tap into China's vast potential for cheap labor, they remained unwilling to abolish the *hukou* system completely. This means that migrant workers in large cities cannot change their residence status from rural to urban—and such status is inherited, not based on where a child is born.[105] This means that children born and raised to migrant labors in the city are ineligible for healthcare or the better schools and their wages are often much less than urban residents. Without the ability to rely on state infrastructure, many migrants use social services provided by NGOs.

The political infighting of top officials over the path of reforms led to a "seesaw" dynamic of loosening and tightening regulations, both economic and social.[106] Two of the first regulations dealing with the emerging civil society were the Regulations on Foundation Management in 1988 and the Regulations on the Registration and Management of Social Organizations in 1989. Together, these regulations mandate that any non-profit organization obtain a government sponsor before they can register.[107] Although recently revised, neither regulation has been replaced and both remain a major obstacle toward official legitimation of many grass-root organizations.[108]

---

[103] Merle Goldman and Roderick MacFarquhar, eds., *The Paradox of China's Post-Mao Reforms*, Harvard Contemporary China Series 12 (Cambridge, MA: Harvard University Press, 1999), 8–9.

[104] Kenneth Lieberthal, *Governing China: From Revolution through Reform*, 2nd ed (New York: W. W. Norton, 2004), 201.

[105] Damien Ma, "China's 20 Percent Problem," *Foreign Affairs*, August 25, 2015, https://www.foreignaffairs.com/articles/china/2015-08-25/chinas-20-percent-problem.

[106] Lieberthal, *Governing China*, 140–5.

[107] Geall and Hilton, *China and the Environment*, 6.

[108] Ibid.

The student protests in 1989, were the largest in a series of several others over the preceding decade. It built upon the historical precedent of using the death of a significant political figure to advance a limited window of opportunity to air grievances.[109] The student protests initially arose from outrage over a slowing of economic liberalization and increased corruption, but as it gained momentum, demands eventually encompassed calls first, for limited democratization, and then eventually all-encompassing changes.[110] As the protests stretched into May, sympathetic protests occurred in over 150 cities throughout the country.[111] The June 4 crackdown in Beijing heralded a shift of the political winds and served as a reminder, both internally and internationally, that China remained a single party, authoritarian system, despite a decade of rapid economic liberalization.

The resulting crackdown in Tiananmen and other student protests nationwide pushed the nascent civil society back toward the fringes and "effectively throttled protest activities everywhere."[112] The harsh response also served as a clear reminder to remain far from political challenges. So long as organizations served a useful role in society, they would continue to be ignored, but should they anger government leaders, arbitrary detentions, house arrests, or harassment would follow.

b. Environmental Regulations

The example of both the Western world and the newly industrialized East Asian countries suggested that sacrificing the environment for rapid economic development and then cleaning up the environment represented the standard path for success. Chinese leaders made a conscious decision to focus first on development and then second on the environment throughout the 1980s and 1990s.[113] Early environmental legislation represented paper tigers, but even its existence was a small step forward.

---

[109] Kissinger, *On China*, 409.

[110] Liang Zhang, Andrew J. Nathan, and E. Perry Link, *The Tiananmen Papers* (New York: Public Affairs, 2002), xxxvi.

[111] Ibid., 398.

[112] Ibid., 416.

[113] Economy, *The River Runs Black*, 18.

During the 1980s, the government wrote several laws and created organizations to monitor environmental degradation or regulate policies, but economic decentralization continued to undermine the ability of these organizations.[114] China is a country ruled by law in which the CCP is supreme and laws are interpreted to suit the whims of the Party.[115] In the realm of environmental law, application is often applied unevenly and on a case-by-case basis.

Three of the most important changes in the 1980s were the creation of the Ministry of Urban and Rural Construction and Environmental Protection in 1982; the separation of the National Environmental Protection Agency (NEPA) from the previous Ministry of Urban and Rural Construction in 1988; and the 1989 Environmental Protection Law announced by the National People's Congress.[116] The initial impact of merging environmental protection into the Ministry of Urban and Rural Construction was a temporary weakening of the Environmental Protection Bureaus. This was partially reversed two years later when the State Council elevated the importance of environmental protection, doubling the staff to 120, and freeing up funding. The separation of the Environmental Protection Bureau into its own agency further strengthened its bureaucratic standing, but it remained junior to other ministries and unable to effectively enforce standards. The Environmental Protection Law was another step forward in recognizing the importance of environmental protection embracing "four central principles: (1) coordination of environmental protection, (2) pollution prevention, (3) polluter responsibility, and (4) enhancement of environmental management."[117] Despite the growing understanding of the importance of environmental protection, particularly on sustaining economic development, enforcement and implementation remained weak.[118]

---

[114] Ibid., 63.

[115] Lieberthal, *Governing China*, 303.

Rule of law: the law is supreme over the desires of individual officials (United States)

Rule by law: the officials are supreme and law is an instrument of governance (China)

[116] Economy, *The River Runs Black*, 100–102.

[117] Ibid., 101.

[118] Ibid., 100–102.

2. The Years 1990–1999

In June 1989, Shanghai Party secretary, Jiang Zemin was chosen as general secretary of the Party and therefore, the "first among equals." He would never succeed in dominating the leadership discourse as previous General Secretaries before him.[119] Because he was in Shanghai at the start of the 1989 student demonstrations, party elders saw Jiang Zemin as acceptable to the masses as well as a pliable and cautious man able to navigate the next stages of reform without sympathizing with political reformers.[120] During his tenure, the succession process for top leaders has "become more regularized, even if [it] remains largely nontransparent and potentially destabilizing." The distinction of being the first to successfully navigate the transition process would go to his successor, Hu Jintao.[121]

During the 1990s, the economic reforms began to take root and China's GDP averaged 9.4 percent annually.[122] This rapid growth was due in large part to the rapid industrialization of the southern provinces, a massive influx of foreign direct investment, and international trade valued at $474 billion in 2000.[123] As China's economy grew, and it avoided the worst effects of the East Asian Financial Crisis, so did China's prestige and confidence in dealing with other nations on the internationals stage. Finally, in 1997, England returned Hong Kong Chinese rule under a policy of "one country, two systems."[124]

a. Civil Society

Following the crackdown in 1989, China faced international censorship from the outside world; however, the lure of a new and lucrative market ensured that despite the

---

119 Zhang, Nathan, and Link, *The Tiananmen Papers*, 308–14; Lieberthal, *Governing China*, 149.

120 Zhang, Nathan, and Link, *The Tiananmen Papers*, xlii–xliii.

121 Lieberthal, *Governing China*, 149.

122 George J. Gilboy and Eric Heginbotham, "China's Coming Transformation," *Foreign Affairs*, July 2001, https://www.foreignaffairs.com/articles/asia/2001-07-01/chinas-coming-transformation.

123 Ibid.

124 Euan McKirdy, "One Country Two Systems: How Hong Kong Remains Separate," *CNN*, September 30, 2014, http://www.cnn.com/2014/09/29/world/asia/hong-kong-protest-backgrounder/index.html.

political fallout, economic growth and experimentation would continue. Although the CCP has made occasional attempts to recentralize some authority, the continued need for decentralization, privatization and openness in economic reforms in order to continue economic reforms have thwarted most of these centralizing efforts.[125] In the space opened by the struggle between a decentralized market economy and centralized political control, civil society grew. By the early 1990s, social organizations had been reformed and—despite new regulations published in 1989—could be broken into two categories: those that were sponsored and legal and those that operated with a legal gray zone. This gray zone includes NGOs who register as businesses to avoid the need for a sponsor and those who do not register, but continue to operate. Unregistered NGOs are tolerated because they provide important social welfare services or non-political associations, such as calligraphy, literary, or photographic societies, or arts clubs.[126]

The legal ambiguity of the early 1990s set a precedent for civil society in China. Many organizations stepped in to fill the void left by a receding state and an expanding private sector focused on the bottom line, not quality of life.[127] Those groups deemed apolitical and which offered aid and other social services, operated within a complex framework of personal networks and shifting laws.[128] Any organization deemed a challenge or threat to the legitimacy or power of officials was prosecuted.

The first officially registered, enduring, environmental NGO (ENGO), the Friends of Nature, or the "Green Culture Institute of the International Academy of Chinese Culture," registered with the Ministry of Civil Affairs in 1994 to raise environmental awareness among average Chinese citizens.[129] Friends of Nature was founded by the son of a revolutionary hero and has since managed to navigate the legal framework,

---

125 Goldman and MacFarquhar, *The Paradox of China's Post-Mao Reforms*, 25.

126 Simon, *Civil Society in China*, 195–7.

127 Goldman and MacFarquhar, *The Paradox of China's Post-Mao Reforms*, 21.

128 Lieberthal, *Governing China*, 199–201.

129 Geall and Hilton, *China and the Environment*, 4.

remaining a legitimate ENGO. Following the brief initial window of openness, the state issued a two-year moratorium on the registration of new NGOs.[130]

The year 1998 was a year of mixed results. Another small step forward occurred when the new Provisional Regulations for the Registration and Management of Popular Non-Enterprise Units (PNEUs) was passed, which allowed several independent non-profits to register in 2000 as PNEUs without sponsors.[131] Registration and sponsorship are important tools of surveillance and control through which the sponsor is expected to help ensure the sponsored organizations do not become a threat to the Party or overstep their bounds.[132] While relaxing some domestic controls through PNEUs, the government placed new restrictions on the official sanctioning of NGOs. The Regulation for Registration and Management of Social Organizations reiterated the need for a government sponsor before being recognized and demanded that NGOs prove legitimate funding sources. The law set initial funding minimums: 100,000 Yuan for a national organization or 30,000 Yuan for a local organization. The regulation also stated that all NGOs must reregister and barred anyone previously convicted of troublemaking or political crimes from participation.[133]

Another small step toward an independent civil society, enacted in 1999, was the Public Welfare Donation Law. The law further clarified "how parties who received a donation might be expected to perform."[134] It also served as early legal framework for a system of contractual relationships and defined public welfare to include, among others: public health services, environmental protection, public utility construction, and services to promote social development. Yet, despite these small steps, the majority of NGOs continued to operate in an ambiguous status without legal protection or the official authority to open bank accounts or receive funding.[135]

---

130 Economy, *The River Runs Black*, 139.

131 Geall and Hilton, *China and the Environment*, 6.

132 Ho, "Greening Without Conflict?," 903.

133 Economy, *The River Runs Black*, 139.

134 Simon, *Civil Society in China*, 255.

135 Geall and Hilton, *China and the Environment*, 8.

b. Environmental Regulations

As the openness of civil society fluctuated by degree, a handful of ENGOs were able to find sympathetic officials willing to serve as sponsors, but many environmental groups chose not to register.[136] Within the national bureaucracy, the senior member of the state environmental apparatus was NEPA. In 1998, NEPA was raised to the ministerial level and renamed the State Environmental Protection Administration (SEPA).[137] This placed SEPA on level with, but not yet senior to, the most powerful state-owned enterprises. During the decade, there was a growing interest in the environment among average citizens, and several local efforts at slowing the rate of degradation, but few such efforts seem to have had significant or long-lasting affects.[138]

3. The Years 2000–2014

The handover of power from Jiang Zemin to Hu Jintao marked the "first timely and peaceful party leadership succession" when Hu Jintao became General Secretary in November 2002 and President of China in March 2003.[139] Known within the party "as a capable, hard-working, consensus builder," Hu Jintao's focus was on continuing China's rise as a regional power and maintaining domestic stability. At home, he quickly moved to focus on raising the quality of life among peasants and migrant workers, recreating a social safety net, and improving the capacity of the party and government.[140] He focused on the harmonization of society, while also presiding over a rising tide of nationalism as a possible ideological replacement to Communism. By the mid-2000s, after its acceptance the World Trade Organization in December 2001, China became more confident in its role as an economic power and was increasingly willing and able to manipulate the rules of international economics.[141] On the international stage, Hu Jintao hosted China's

---

136 Lieberthal, *Governing China*, 200.

137 Economy, *The River Runs Black*, 111.

138 Joy Yueyue Zhang and Michael Barr, *Green Politics in China: Environmental Governance and State-Society Relations* (London: Pluto Press, 2013), 66–67.

139 Lieberthal, *Governing China*, 149.

140 Ibid., 155–56.

141 "All Change," *Economist*, December 10, 2011, http://www.economist.com/node/21541448.

"coming out party," the 2008 Summer Olympics in Beijing. By 2012, China was a recognized regional power, and beginning to challenge Western nations as an economic rival.

Then in 2012, China completed its second peaceful transition of senior leadership from Hu Jintao and his cabinet to Xi Jinping. Xi Jinping first appeared as heir apparent in 2009, before official taking over as President of China following the 18th Party Congress at the end of 2012.[142] As a princeling, or the son of a revolutionary hero and economic reformer, President Xi Jinping is considered the fifth generation of leaders, familiar with both consensus-style rule and the personality cult of Mao. He is also surrounded by leaders with similar backgrounds, which includes the chaos of the Cultural Revolution. He has followed through on promises of limited reforms without risking the strength of single party rule. He is the first leader to assume command of both the military and control of the party simultaneously. His first two years as president have been filled with stories of anti-corruption campaigns, increased tensions at sea, increased pressure on civil society and little reform either economically or politically.[143]

a. Civil Society

Following two decades of economic growth and lax environmental regulation enforcement, the dark side of capitalism became more apparent in China. As a new generation of urban Chinese came of age without personal memories of hardship or chaos and income inequalities between the rich and poor, urban and rural, and other problems

---

142 "Xi Jinping," accessed August 6, 2015, http://topics.nytimes.com/top/reference/timestopics/people/x/xi_jinping/index.html.

143 "Xi Who Must Be Obeyed," *Economist*, September 20, 2014, http://www.economist.com/news/leaders/21618780-most-powerful-and-popular-leader-china-has-had-decades-must-use-these-assets-wisely-xi; Edward Wong, "Chinese Security Laws Elevate the Party and Stifle Dissent. Mao Would Approve.," *New York Times*, May 29, 2015, http://www.nytimes.com/2015/05/30/world/asia/chinese-national-security-law-aims-to-defend-party-grip-on-power.html; Edward Wong, "Ending Congress, China Presents New Leadership Headed by Xi Jinping," *New York Times*, November 14, 2012, http://www.nytimes.com/2012/11/15/world/asia/communists-conclude-party-congress-in-china.html; Ian Johnson, "China's 'Princelings' Wield Sway to Shape Politics," *New York Times*, November 13, 2012, http://www.nytimes.com/2012/11/14/world/asia/chinas-princelings-wield-influence-to-shape-politics.html; Alice Miller, "How Strong Is Xi Jinping?," Text, *Hoover Institution*, (March 13, 2014), http://www.hoover.org/research/how-strong-xi-jinping; Alice Miller, "The New Party Politburo Leadership | Hoover Institution," January 14, 2013, http://www.hoover.org/research/new-party-politburo-leadership.

associated with the developing world began to emerge, the CCP is struggling with a lack of coherent ideology. Under President Hu Jintao, economic growth remained the primary focus but a secondary focus on "harmony" also increased space for civil society to grow.

In 2004, Premier Wen Jiaobao stated that the government would soon pass the responsibility for specific social services to NGOs and other intermediary agencies, offering further hope of continued liberalization. A few years later, the Deputy Director of SEPA, cited the importance of NGOs, particularly ENGOs for the enforcement and education of environmental protection.[144] Then in 2008, a "new Regulations on Open Government Information" took effect giving "citizens the legal right to obtain government information." Combined with the Measures on Open Environmental Information, Chinese environmentalists hailed the new regulations "as 'an important milestone for freedom of information in China,' and a powerful lever for the public to monitor companies' environmental performance.'"[145] The reality, however, has proved more disappointing in implementation.

The cautious seesawing continued as the decade came to a close, and in early 2010, new regulations "placed additional obstacles to receiving international funding, with new requirements for notarized agreements and detailed application forms."[146] Revenue streams for NGOs in China come from bother international and domestic donors, however, the majority of human rights or other controversial activists' funding is primarily from overseas. Regulating who and how organizations can receive funding allows the government another lever of control. The new regulations, "represent a large burden for independent NGOs and leave them vulnerable to interference by government agencies through the uncertainties they create."[147] Yet, even as these new regulations came into force, the leaders drafting the Twelfth Five-Year Plan wrote a document

---

144 Economy, *The River Runs Black*, 138.

145 Geall and Hilton, *China and the Environment*, 10.

146 Ibid., 11.

147 Ibid.

allowing civil society to play a "substantial role in China's social and economic development,"[148] echoing aspects of civil society under the Qing.

b. Environmental Regulations

During the 2000s, not only was the growth in civil society allowed, but also the growing middle class began to take more of an interest in societal problems. Of particular interest to this new generation was the obvious degradation of the environment and its impact on their health and that of their children. Taking advantage of greater operating space, Chinese NGOs worked to educate people and increase their awareness of the hazards of environmental degradation.

Despite numerous laws and regulation, enforcement has proven extremely difficult. In 2005, surveys revealed that only 23 percent of factories properly treat sewage and that "one-third of industrial wastewater in China and two-thirds of household sewage are released untreated."[149] With little incentive and no enforcement, China's environmental regulations are little more than paper tigers. For example, in 2001, Beijing outlined plans to cut sulfur dioxide emissions by 10 percent over a three-year time span. Instead, between 2002 and 2005, "emission rose by 27 percent."[150]The one exception to this lack of enforcement surrounded the 2008 Olympic host sites, but the air quality of Olympic sites returning to previous levels of pollution once international attention was no longer focused on Beijing. So far, government rhetoric has yet to have any significant or long-term impact on conditions on the ground.

China's interaction on the world stage has been similar. Since ratifying the Kyoto Protocols in 2002, China has signed "38 out of 48 international conventions relating to environmental protection."[151] Despite increasingly strong rhetoric in international forums, governmental actions remain incremental and insignificant allowing the environment in China to continue deteriorating at an unsustainable pace. One step, which

---

148 Simon, *Civil Society in China*, 321.

149 Elizabeth C. Economy, "The Great Leap Backward? The Costs of China's Environmental Crisis," *Foreign Affairs*, September 1, 2007, 43.

150 Ibid., 49.

151 Economy, *The River Runs Black*, 105.

appeared aimed at increasing government focus on environmental protection occurred in 2008 when SEPA was further elevated to the cabinet level and renamed the Ministry of Environmental Protection (MEP). While the elevation allowed the MEP to vote within the State Council, and placed it senior to the state-owned enterprises, the MEP is still unable to force other ministries to follow its advice and lacks jurisdiction over local Environmental Protection Bureaus (EPBs). The promotion also contained a reduction in staff: only 300 employees in Beijing and a total of national size equivalent to about one-sixth of the U.S. Environmental Protection Agency (EPA). The MEP also has much less funding than its U.S. counterpart, a promised 1.3 percent of GDP. Of the promised funding, approximately half went to legitimate projects and of those projects considered legitimate, approximately 60 percent was spent on less critical developments such as green spaces instead of sewage or wastewater treatment facilities.[152]

The previous year, in 2007, the judiciary created another avenue toward environmental reform—environmental protection courts. Dedicated to ruling on environmental infractions these courts were given authority to rule in criminal, civil, and administrative cases. While another excellent step forward on paper, the majority of cases accepted to be tried have been small, local issues aimed at paying damages to locals without addressing more complicated issues or challenging any companies of significant size or importance.[153]

A final tool available to the MEP targets companies' wallets. The first part, "green credit," allows lower borrowing rates for companies that are more environmentally friendly. Unfortunately, enforcement capability is limited and many provincial authorities are unwilling to reduce or cut credit to profitable but polluting companies within their area. The second half, implemented in January 2008 and named the Green Securities policy, prevents heavily polluting companies from being granted an initial public offering (IPO). This appears to have had a stronger initial impact. In the year following implementation, 20 of the 38 companies requesting an IPO failed the

---

152 Ibid., 111–13.

153 Economy, *The River Runs Black*, 219–220.

environmental assessment and were prevented from listing an IPO.[154] Taken together, all of the government's new regulations and initiatives offer new opportunities and signal the government's willingness to engage the public on environmental issues. The government's signals of increased openness to engagement, combined with the slow movement of the lower levels of bureaucracy help explain the rise in environmental activism.

B. ENVIRONMENTAL ORGANIZATIONS, SOCIAL MEDIA, AND CASE STUDIES

China's environmental awareness has grown since the early 1990s with small grassroots organizations. An interesting aspect of NGOs in China is that unlike in the Western understanding of NGOs, self-government is not considered an integral part of the official definition in China.[155] Instead, the Chinese government believes NGO's should be sponsored by a "mother-in-law."[156] Both the need for a sponsor and a disregard for self-government has resulted in the parallel development of government organized NGOs (GONGOs). Some GONGOs serve as holding patterns for older bureaucrats not yet ready to retire, some serve as a government mechanism for working with international organizations, and some serve as legitimate, semi-independent organizations bridging smaller NGOs and government sponsors.[157] Alongside both the official and unofficial ENGOs, China's MEP has six registered GONGOs: the China Environment Science Association; the China Environment Protection Industry Association; the China Environment Fund; All-China Environment Federation; and the Chinese Society for Environment Sciences.

1. Environmental Activists

By 2006, the Chinese government listed 354,000 officially registered NGOs of which there were 3,539 ENGOs, GONGOs, and school environment societies recorded in

---

154 Ibid., 121–22.

155 Zhang and Barr, *Green Politics in China*, 11.

156 Ho, "Greening Without Conflict?," 903.

157 Economy, *The River Runs Black*, 142–43.

Mainland China, Hong Kong, Macau, and Taiwan in 2008 by the All-China Environment Federation.[158] Of the thousands of ENGOs throughout China, most are small, local grassroots organizations; however among the thousands of lesser-known ENGOs are four with a much larger area of influential and broader recognition outside of China. The ENGOs highlighted in this chapter are: Friends of Nature, Green Village, Green Beagle, and the Institute of Public and Environmental Affairs.

a. Environmental Non-government Organizations

One of the oldest ENGOs in China is Friends of Nature (FON). Started by Liang Congjie in 1994, under the sponsorship of the Chinese Academy of Culture, of which he was a member. As a Party insider and rising environmental voice, with significant government ties, Liang has been able push the boundaries of government efforts from within the system. This has included sponsoring proposals from other individuals and publicly criticizing local officials when other government agencies were unable, as well as providing small start-up grants to other rising ENGOs.[159]

Friends of Nature's primary focus areas are environmental education and the conservation of local wildlife. While FON's offices are in Beijing and it illegal to have branches in other localities, FON often sends volunteers into other provinces and rural villages to spread awareness of the environment with emphasis on local issues. They have also found ways to circumvent regulations by establishing member organizations—27 to date—outside Beijing.[160] Members of FON have also left Beijing and gone on to start new NGOs in other cities, spreading FON's influence into new cities. Of specific note are the Green River Network in Chengdu and Green Volunteer League in Chongqing.[161]

---

[158] Ibid., 137, 142; Geall and Hilton, *China and the Environment*, 44–5.

[159] Economy, *The River Runs Black*, 153–7; "自然之友—真心实意，身体力行," *Friends of Nature*, accessed August 8, 2015, http://www.fon.org.cn/index.php/Index/post/id/26; "About," *Friends of Nature*, accessed August 8, 2015, http://www.fon.org.cn/index.php/en/post/id/1114.

[160] Ho, "Greening Without Conflict?," 913.

[161] Economy, *The River Runs Black*, 153–7.

For more information on the ENGOs listed visit www.green-river.org or http://chinadevelopmentbrief.cn/directory/the-chongqing-green-volunteer-league/

A second Beijing based ENGO is Global Village Beijing. Founded by Liao Xiaoyi (aka Sheri Liao) in 1996, Global Village chose to register as a business due to the government moratorium on new NGO registration between 1995 and 1997. The focus of Global Village is on urban environmental issues and raising public awareness through television programing. Focusing on urban issues within Beijing, Global Village works with local officials to promote recycling projects and the use of energy efficient technology. Unlike some environmentalists, Liao Xiaoyi maintains a firm apolitical stance and avoids "troublemaking." She believes an NGO should educate the public, help the government with implementation, and encourage businesses to accept corporate social responsibilities.[162]

A third ENGO, Green Beagle, similarly focuses primarily on awareness and education, but also conducts citizen journalist workshops. Feng Yongfeng, a journalist for a paper catering to the academic elite and minority parties, founded Green Beagle. Despite the primary emphasis on education and awareness, Green Beagle also sees itself as a constructive, professional, non-confrontational environmental workshop. To this aim, they began running "free public services…to test electromagnetic pollution, indoor formaldehyde pollution, noise pollution and water quality"[163] and then posting surveys and information online. This background placed them in good standing in the forefront of the citizen campaign against China's poor air quality (discussed in further depth below).[164]

A final ENGO, the Institute of Public and Environmental Affairs (IPE), was founded in 2005 by Ma Jun. He also works as a journalist and published the book *China's Water Crisis*, in 1999, to highlight the issue of China's water pollution. IPE collects data on environmental polluters and publishes online datasets focused on highlighting awareness for local populations and shaming companies into compliance. In

---

[162] Ibid., 168–9.

[163] Zhang and Barr, *Green Politics in China*, 73.

[164] Ibid.; Geall and Hilton, *China and the Environment*, 15–17; "Green Beagle Institute," accessed August 8, 2015, http://www.bjep.org.cn/Home/IndexEn.

Green Beagle was named after Charles Darwin's famous voyage on the *HMS Beagle*.

2006, the datasets contained over 3,000 violations and within two years had grown to over 90,000 data points. To avoid confrontation with government censors, IPE publishes only government-approved data, partners with the MEP, and is more explicit when calling out violations supported by multi-national companies (MNC) than state-owned and domestic enterprises.[165]

In 2008, IPE pushed the boundaries of civil society regulation within China by forming an alliance of 41 environmental groups aimed at conducting surveys and providing environmental data on MNC's supply chain management. The campaign pointed to 29 MNCs whose sub-contracted factories were heavily polluting the Chinese environment, including heavy metal poisoning of small children. Twenty-eight of the twenty-nine companies were quick to accept the criticism and suggestions of the IPE alliance. Many of these companies also launched their own environmental surveys or offered other guarantees. The final company spent months stalling before grudgingly listening, but offering no reassurance or guarantees. It was not until two U.S.-based organizations became involved, a media campaign to American consumers was launched, and sustained pressure showing numerous deaths or injuries linked to supply factories that the company eventually initiated its own environmental audits, publicized the names of their suppliers, and finally agreed to work with Chinese ENGOs.

The importance of this campaign is two-fold. First, as shown through IPE's ability to publicly highlight environmental issues, the government granted tacit approval. This sets a precedent for journalists to attack other polluting factories. Second, IPE was able to lead a coalition of geographically disparate organizations covering most of China, including two U.S. based organizations and maintain pressure over two years in their campaign for a cleaner environment. While branches of the same NGO within multiple cities is banned, this shows that a growing connectivity of Chinese civil society is being allowed, at least when focusing on the environment and targeting international companies.[166]

---

165 Economy, *The River Runs Black*, 176; Geall and Hilton, *China and the Environment*, 66–71.

166 Economy, *The River Runs Black*, 176; Zhang and Barr, *Green Politics in China*, 81–2; Geall and Hilton, *China and the Environment*, 71–5.

b. Online Activists

As the political opportunity space for civil society grew, new technologies were also emerging and making their way to Chinese consumers. The first wave was cell phones and the ability to text or communicate with others without being physically co-located. This allowed for the faster communication of ideas across large geographic areas.[167] Then came advent of the Internet in the late 1990s and the rise of social media as a new tool and medium through which people could communicate on a large scale in the mid-2000s. As the Internet developed, the rise of social media opened more space for Chinese, both overseas and domestic, to communicate and raise awareness of environmental degradation.

As ENGOs grow in size and numbers, the support and information available online has played a factor in reaching a growing number of Chinese and the growing environmental movement within China. While IPE built consensus and alliances, one of their greatest tools was the ability to offer database of heavily polluters online. Ma Jun's work is one aspect of online activism, several other influential websites include *Chinadialogue* and *China Digital Times* (*CDT*). *Chinadialogue* is a London and Beijing based non-profit devoted "to the publication of high quality, bilingual information, direct dialogue and the search for solutions to our shared environmental challenges"[168] through citizen journalists—articles and photos—and discussion within China and around the world.[169] *China Digital Times*, based in Berkley, California, does not focus solely on the environment, but serves as a bilingual media aggregator tracking, reporting, and translating the news from China into English and from the West into Mandarin. They also

---

167 Jim Yardley, "A Hundred Cellphones Bloom, and Chinese Take to the Streets," *New York Times*, April 25, 2005, http://www.nytimes.com/2005/04/25/world/asia/a-hundred-cellphones-bloom-and-chinese-take-to-the-streets.html.

168 "相关 | About," *Chinadialoge*, accessed August 7, 2015, https://www.chinadialogue.net/static/about.

169 "中外对话 | Chinadialogue—China and the Environment," *Chinadialoge*, accessed August 7, 2015, https://www.chinadialogue.net/.

publish leaked documents from the propaganda department on the mechanisms behind China's censors.[170]

2. A Case Study

The following section will examine a single case study of how civil society has pressured the government for limited changes without protest. Chapter III will further discuss the numerous protests that have occurred over the last decade and Chapter IV will briefly review the varied responses from the government. While some protests have succeeded in scaling back or closing a single factory, in many cases, the closure is temporary at worst, or the offending factory is moved to a less contentious area at best. Even the best cases have had limited impact on policy.

One reason for limited impact may be the narrow operating space for public discourse. While the Chinese government has numerous environmental regulations and policies are occasionally enforced, the capacity of the state to increase enforcement appears limited. Instead, ENGOs focus on filling this gap. Sometimes this means teaching about the environment and conservation. Other times it means extended, non-confrontational campaigns or lawsuits, and sometimes it is protest.[171] The remainder of this section explains one example, which demonstrates the success of non-confrontational campaigns in China. Protests will be covered more extensively in Chapters III and IV.

One of the most widely recognized Chinese environmental concerns, worldwide, is air pollution. Following the 2008 Olympics, particular focus has been on Beijing's air. Air pollution has gotten so bad that, in September of 2012, a businessman began to sell "fresh air in a can."[172] Prior to the 2008 Olympics, residents of Beijing and other Chinese cities were aware that the air quality was poor, but not necessarily the degree of harm or level of degradation. The vague notion of harm was also seen as less important than continued economic growth. At the time, official Chinese statistics used particulate

---

170 "About China Digital Times—China Digital Times (CDT)," *China Digital Times (CDT)*, accessed August 7, 2015, http://chinadigitaltimes.net/about/.

171 Zhang and Barr, *Green Politics in China*, 23.

172 Ibid., 64–5.

matter 10, or PM10, a less strict standard of microns 2.5 to 10 microns in diameter.[173] Using this standard for official statistics, 70 percent of Chinese cities met international standards. The Chinese government then used these statistics to argue that the complaints of the international community were exaggerated and an attempt to lessen the pride of Beijing hosting the 2008 Olympics. Then starting in the spring of 2008, the U.S. Embassy began tweeting a new air quality measure, PM2.5.[174] PM2.5 is the level of particulate matter in the air 2.5 microns or less, too small to see, but larger enough to irritate lungs and cause respiratory health issues.[175]

Leading up the Olympics, the CCP promised the international community it would clean up the air in cities where sporting events were to occur. The effort required to ensure blue skies for these events was massive and some of these temporary measures were repeated for the APEC meetings in Beijing, the Shanghai World Expo in 2010, and other high visibility events hosted by China. The temporary respites gave people a brief look at a brighter alternative.[176] As the U.S. embassy continued to tweet PM2.5 numbers, local residents soon began re-tweeting via *Sina Weibo*, China's indigenous social media platform (analogous to a combination of Facebook and Twitter). The data was then compared—often unfavorably— to the apparently massaged official data released by various governmental organizations and Party propaganda officials. In 2010, the MEP released new air quality standards, but left out the politically controversial PM2.5 numbers, enraging the simmering population.[177] Although angry and growing

---

173 "Particle Pollution (PM)," accessed August 28, 2015, http://www.airnow.gov/index.cfm?action=aqibasics.particle.

"Fine particles ($PM_{2.5}$) are particles in the air 2.5 micrometers in diameter or smaller, and can only be seen with an electron microscope. Fine particles are produced from all types of combustion, including motor vehicles, power plants, residential wood burning, forest fires, agricultural burning, and some industrial processes."

174 Zhang and Barr, *Green Politics in China*, 68.

175 Sam Geall and Isabel Hilton, *China and the Environment*, 41

176 Zhang and Barr, *Green Politics in China*, 66–7.

177 Ibid., 69.
PM2.5 was politically sensitive at this time because China used the much larger PM10 to allow for better statistics. Using the CCP's preferred PM10, 70 percent of Chinese cities met international standards; however using PM2.5 the number fell below 20 percent

increasingly concerned, without a focal point for their anger and no opportunity space, the anger could only to simmer.

Then in 2011, Green Beagle started a grassroots campaign to monitor local air quality. Using 24 volunteers, over the course of a month they mapped a rough sketch of Beijing's air quality citywide and the idea spread like wildfire throughout the country. Volunteers began to travel with small air-quality monitors and posted the information on *Weibo* using hashtags such as "I monitor the air for my country" or "I monitor the air for my [city]."[178] That year, two Beijingers also published a photo journal showing that between 2009 and 2010 there had been only 180 days of blue skies despite an official count of 280.[179]

The government resisted society pressure for another year, and in 2012 Deputy Minister of Environmental Protection even attempted to criticize the U.S. embassy's publication of PM2.5 data. The Deputy Minister argued that the Twitter stream violated Chinese law, ignored international convention, and interfered in China's domestic affairs.[180] An embassy spokesman replied that the monitoring was aimed at and for informing U.S. citizens and was therefore was wholly separate from Chinese internal affairs.[181] The Chinese media responded to the environmental minister's statements with derision and sided in favor of continued open information. Finally, in early 2012, the CCP began releasing trial PM2.5 data, revised the air quality standards to include PM2.5, data, and promised to roll out stricter standards starting in Beijing and applying nationwide by 2015.[182]

The case study also demonstrates the role of NGOs in ideal situations: drawing on the role of technology, working from the margins inward, and overcoming government resistance without violence. From the case study, it becomes clear that street protests are only a small part of the spectrum of negotiation between state and society. In a political

---

178 Ibid., 70.

179 Geall and Hilton, *China and the Environment*, 41.

180 Zhang and Barr, *Green Politics in China*, 75.

181 Ibid., 76.

182 Geall and Hilton, *China and the Environment*, 42.

environment such as China, street protests are extremely risky and the case study demonstrates how there are other ways to pressure the government. There is a vibrant culture of active individuals willing to confront the government in medium-risk or low-risk ways to try to secure change.

C. CONCLUSION

Since China began its efforts to open its economy, it has focused on development first and cleaning the environment second. Over this same period, the government recognized it was not capable of filling all its social responsibilities and began to retreat from individual's private lives. This retreat left behind a vacuum into which private organizations, both for profit and non-profit, soon moved. Alongside the private sector, civil society has grown to assist in the filling of the void, but it has not done so at a pace equal to governmental retreat or economic growth. Although the government has come to acknowledge the need for limited civil society, it remains leery of many non-profits and the possibility, especially during street protests, for them to shift their focus from a limited societal issue to a broader goal of democratization. This has led to a shifting array of legislation and periods of greater enforcement followed by greater openness.

While civil society has grown in incremental steps, the level of attention for environmental awareness has grown exponentially over the last decade and a half. Since the 1980s, China has slowly been bringing its environmental regulations in line with the international community. Since the 2002 Kyoto conference, the pace has increased, but while the environmental regulations are strong and there are structures for enforcement, capacity has not kept pace. China's enforcement capacity of environmental laws is extremely weak, and while gains were made early this decade, in the creation of green courts, these courts are not empowered enough in practice to make a lasting effect at this time. Without greater funding, more people, and increased enforcement, China's environmental regulations will not be enough to prevent the continued degradation of the environment—to China's peril.

Chapter II laid out the recent history of modern China's civil society and environmental regulations. It also introduces a few of the ENGOs at the forefront of the

environmental movement. These organizations do not appear willing to participate in street protests, but are willing to communicate with the media about the issues and often provide the means for protesters to meet and communicate. While these ENGOs are unwilling to protest in the streets, there appears to be an increasing willingness among average citizens to express their displeasure through contentious actions such as street protests. Chapter III will look at the available data and a broad overview of first order qualitative analysis.

III. ENVIRONMENTAL PROTEST IN CHINA: BY THE NUMBERS

In 2004, there were 74,000 protests in China, up from 10,000 a decade earlier.[183] Often referred to as "mass incidents" by the CCP, the numbers have continued to rise with as many as 180,000 reported in 2010.[184] Protests in China are not a new phenomenon, but historically they have dealt with traditional economic and political issues such as land confiscation, taxes and fees, labor, pensions, and corruption. In the last decade, however, officials have seen the addition of environmental issues and pollution, with one (apparently national level) official recently claiming that "pollution has replaced land disputes as the main cause of social unrest in China."[185] As the total number of protests increases and the continued growth of the Internet connects more people, the number of protests visible to the international community is also rising.

This chapter looks at the available data and a broad overview of first order qualitative analysis. Chapter IV will then discuss these trends in relation to social movement theory and international protests. The first section discusses the patterns and trends, specifically which topics are most contested and the size of protests. The next section compares the data against variables offered in literature on social movements and modernization theory. These variables include political opportunity, as measured by distance from Beijing; levels of expected dissatisfaction, as measured by severe environmental degradation; internal migration patterns; and economic variables such as income, industrialization, and unemployment.

---

[183] Jean-Francois Tremblay, "Tempers Flare In China," Professional Journal News Blog, *Chemical & Engineering News*, (September 26, 2005), http://pubs.acs.org/cen/coverstory/83/8339china.html.

[184] Alan Taylor, "Rising Protests in China," *Atlantic*, February 17, 2012, http://www.theatlantic.com/infocus/2012/2/rising-protests-in-china/100247/.

[185] "Chinese Anger Over Pollution Becomes Main Cause of Social Unrest," *Bloomberg Business*, March 6, 2013, http://www.bloomberg.com/news/articles/2013-03-06/pollution-passes-land-grievances-as-main-spark-of-china-protests.

A. OVERARCHING TRENDS IN CHINESE ENVIRONMENTAL PROTESTS

Between 2005 and 2014, forty-seven reports of protests focused on environmental concerns in several blogs and Western media (only English language sources). The data used for this thesis came from a variety of English language newspapers and bilingual blogs. Primary search terms used to find articles included "environment," "protest(s)," "China," and related words.

Using solely English language sources limits the data to what can be observed or is deemed worth reporting in the international media. Prior to 2005, the data seemed to be even more limited and biased—only a single, environmental protest in 2004.[186] Based on the available data from 2005–2014, the lack of incidents of environmental protests pre-2005 seems to suggest either a lack of reporting, or that the environment has only recently become a contentious issue capable of drawing large numbers of people into the streets. For clarity, month-year, rather than specific dates were used since too few articles listed definite or consistent dates for the length of the street protests. Many times, a protest would be reported only once (or one day) or the article would discuss the results of previous street protest without specifying dates. When specific dates were not listed, the article was assumed to have been published within the same month as the street protest.

Similar to attempting to parse specific dates or exact length of a protest from oblique sources, the location of a protest was often difficult to pinpoint, particularly in some of the older articles. To standardize the analysis, city or village location was "best approximation" and protests were aggregated to the provincial level. The size of protests was also aggregated as many articles rounded to "hundreds" or "thousands" rather than attempt a more exact estimation. To allow for analysis, even when better numbers were listed, the size was rounded to nearest tens place: thousands = 1,000, hundreds = 100 to represent best estimates.

---

[186] Louisa Lim, "China Tries to Calm Dam Protests," *BBC News*, November 18, 2004, sec. Asia-Pacific, http://news.bbc.co.uk/2/hi/asia-pacific/4021901.stm; Ramzy, "Chinese Environmentalists Lose Fight to Stop Nu River Dams."

The category of an issue was determined based on the declared complaint reported in the article. If the protest was against a factory or chemical plant but did not mention a specific complaint, the protest was categorized based on the type of pollution most commonly associated with the specific industry. Because environmental research is often broken into air, water, or soil, "overarching concerns" was also divided into the categories air, water, or soil. In the event that more than one type of pollution was mentioned, the street protest was counted under both categories. The results of some protests were included in the data set (Appendix), but will only be cursorily discussed and generalized in Chapter IV. The return for attempting to numerically codify results in a quantitative matter for Chapter III was determined to be too high, but of interest qualitatively. The first section of this chapter will discuss the characteristics of the protests such as issue, size, and year. The second section will compare the protests with economic and demographic data.

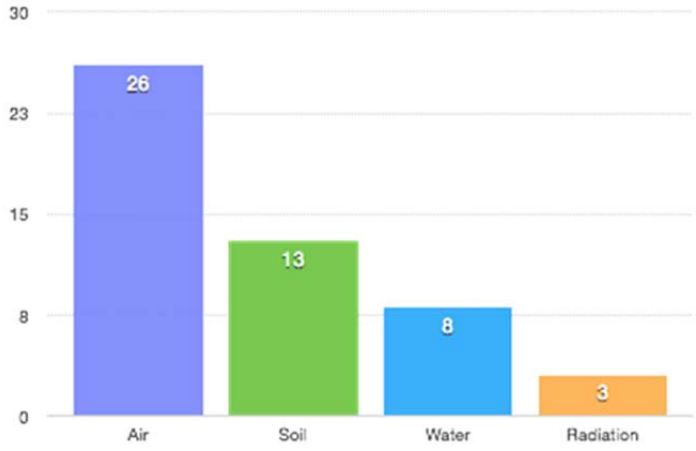
1. Data Characteristics

Between 2005 and 2014, there were forty-seven environmental street protests reported in China. The four overarching concerns (see Figure 1) can be divided into air pollution, soil pollution, water pollution, and fears of electro-magnetic (EM) radiation.

Figure 1. Major Over-arching Categories of Environmental Protests

Protest by Major Issue

REASON	NUMBER
Air	26
Soil	13
Water	8
Radiation	3

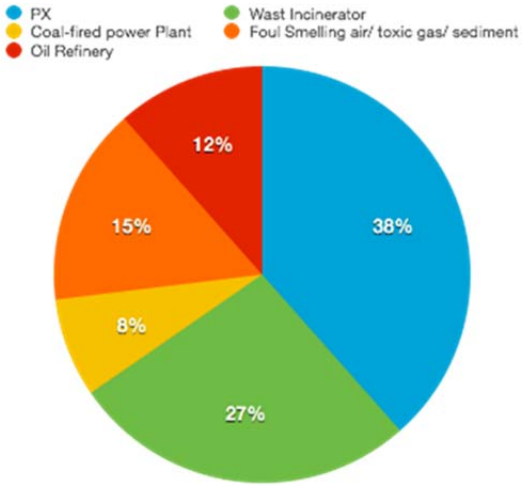


Source: "Chinese Environmental Protests (2005–2014)," see Appendix.

Three of the four categories shown in Figure 1 can be further broken down into a handful of larger Subcategories as shown in Figure 2 (Air), Figure 3 (Soil), and Figure 4 (Water).

Figure 2. Air Pollution Protests Divided into Major Subcategories

REASON	NUMBER
PX	10
Waste Incinerator	7
Coal-fired power Plant	2
Foul Smelling air/ toxic gas/ sediment	4
Oil Refinery	3



Source: "Chinese Environmental Protests (2005–2014)," see Appendix.

Air pollution, appears to be both the most divisive and most reported. Based on Figure 1, the primary reason for protesting was air pollution, which accounted for 26 of the 47 protests or 55 percent. The protests against air pollution can be further divided into several Subcategories (Figure 2), many dealing with the building or launch of a factory or power plant. The most frequently reported cause of protest is against the construction and operation of paraxylene (PX) plants. The biggest concern with PX is that it is commonly perceived as carcinogenic by the public and describe as not terrible toxic by Chinese officials. In contrast, U.S. officials state that data is inconclusive as to whether or not the chemical is a carcinogenic, but describe it as likely to cause difficulty breathing after short-term exposure and likely to "cause harmful effects to the liver, kidneys and the central nervous system" over the long-term.[187] The debate over health effects is not the only issue, and all officials agree that PX is highly inflammatory, as demonstrated by the series of explosions that occurred in 1997, 2013, and 2015, further compounding fears of PX. While

[187] Wang Yan, "A Nasty Necessity," *NewsChina*, accessed August 28, 2015, http://www.newschinamag.com/magazine/a-nasty-necessity.

there does not seem to have been a spike in PX protests following the 2013 explosion, the building of new PX factories and a mistrust of government regulations remain contentious issues.[188]

The second most cited cause of protest is the issue of waste incinerators (Figure 2). Waste incinerators are one way of generating power through the burning of trash. Despite their safe, non-toxic, and noncontroversial uses in some developed countries, particularly Japan, they are quickly becoming a major flash point in China.[189] The perceived problem with waste incinerators in China is not the burning of trash, but the lack of environmental controls and government transparency that allow plants to spew toxins without the more expensive safeguards required in other countries. While the government continues to uphold international examples of safe waste incineration use and construction, local Chinese remain skeptical.[190]

---

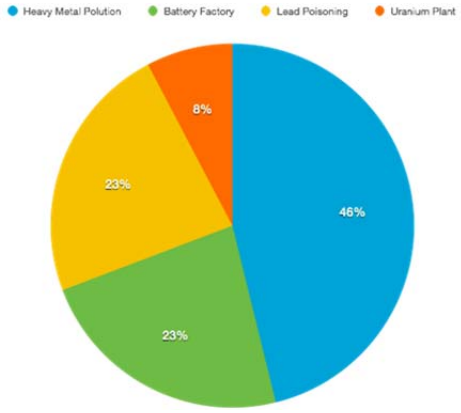
188 Liu Qin, "Govt Assurances on PX Petchem Plants Vapourised after Latest Explosion," *Chinadialogue*, August 4, 2015, https://www.chinadialogue.net/blog/7835-Govt-assurances-on-PX-petchem-plants-vapourised-after-latest-explosion/en; Sophie Beach, "Explosion at PX Plant Reignites Safety Concerns," *China Digital Times (CDT)*, July 30, 2013, http://chinadigitaltimes.net/2013/07/explosion-at-px-plant-reignites-safety-concerns/.

189 Sam Geall, "Why I Don't Protest against My Local Waste Incinerator," *Chinadialogue*, September 6, 2014, https://www.chinadialogue.net/blog/7028-Why-I-don-t-protest-against-my-local-waste-incinerator/en; Blaine Harden, "Japan Stanches Stench of Mass Trash Incinerators," *Washington Post*, November 18, 2008, sec. World, http://www.washingtonpost.com/wp-dyn/content/article/2008/11/17/AR2008111702968.html.

190 "Waste Incineration Information Platform," *Waste-Cwin.org*, accessed August 8, 2015, http://www.waste-cwin.org.

Figure 3. Soil Pollution Protests Divided into Major Subcategories

REASON	NUMBER
Heavy Metal Polution	6
Battery Factory	3
Lead Poisoning	3
Uranium Plant	1



Source: "Chinese Environmental Protests (2005-2014)," see Appendix.

While smog is an obvious and daily reminder of environmental degradation and rivers are visibly collecting trash and turning purple, black, or growing poisonous algae blooms, soil pollution is the most insidious. The low visibility of soil pollution explains why soil-related pollution is protested less often or vigorously than air pollution—people generally protest less frequently against gradual or invisible contamination—but not why it is more protested than water pollution.

In China, soil contamination is primarily industrial wastewater or factory runoff containing heavy metals that then seeps into the soil. Related protests can be broken into a few subcategories (Figure 3), but almost all soil pollution is the result of dangerous levels of heavy metals seeping into the soil, particularly in rural areas. The most common type of heavy metal poisoning is cadmium, which has affected a significant portion of China's arable land.[191] While figures for heavy metal contamination are disturbing, affecting approximately 19 percent of China's farmland, Figure 3 focuses attention on lead poisoning specifically, as there have been several cases of children testing well above international norms for high concentrations of lead in their blood.[192] In one village,

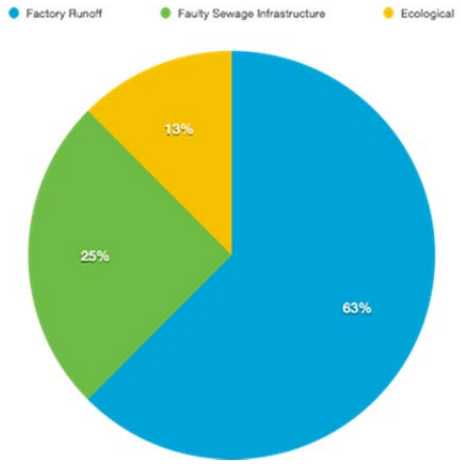
[191] He Guangwei, "China's Dirty Secret: The Boom Poisoned Its Soil and Crops," eJournal, *Yale Environment 360*, (June 30, 2014), http://e360.yale.edu/feature/chinas_dirty_pollution_secret_the_boom_poisoned_its_soil_and_crops/2782/.

[192] Bao Xiaodong and Yang Guoyao, "Locals Attack Factory in South-East China after Child Lead Poisonings," *Chinadialogue*, February 10, 2014, https://www.chinadialogue.net/article/show/single/en/7363-Locals-attack-factory-in-south-east-China-after-child-lead-poisonings; "Protest against Suspected Lead Pollution Continues in E China English," *Xinhua*, September 18, 2009, http://news.xinhuanet.com/english/2009-09/18/content_12076135.htm.

615 of 731 children tested positive for lead poisoning but the plant, which stopped production in 2009, planned to re-open in 2010 supposedly under stricter regulation.[193] The vulnerability of children, may explain why soil pollution, often the most insidious and least visible is protested more often than water pollution.

Figure 4. Water Pollution Protests Divided into Major Subcategories

REASON	NUMBER
Factory Runoff	5
Faulty Sewage Infrastructure	2
Ecological	1



Source: "Chinese Environmental Protests (2005–2014)," see Appendix.

Finally, of the three polluted elements, water was the least protested. Water pollution does not appear to draw nearly the same level of outrage as either air or soil pollution. Two reasons might explain why there are fewer protests: the first is that when water pollution reaches the level that it is dangerous to life or livestock, the peasants affected seek compensation for lost property and not necessarily agitate for the cessation of pollution. These peasants would most likely agree that clean water would be better for them, but their immediate concern and primary focus was compensation so they can take care of their families and thus does not result in street protests. Second, locating the source of pollution is often much more difficult in the case of water pollution, as runoff can travel miles downstream, often crossing local or provincial borders.[194] To further

[193] Fred Pearce, "As China's Pollution Toll Grows, Protesters and Media Push Back," eJournal, *Yale Environment 360*, (March 18, 2010), http://e360.yale.edu/feature/as_chinas_pollution_toll_grows_protesters_and_media_push_back/2254/.

[194] Edward Cody, "China's Rising Tide of Protest Sweeping Up Party Officials," *Washington Post*, October 12, 2005, http://www.washingtonpost.com/wp-dyn/content/article/2005/09/11/AR2005091101681_pf.html.

complicate matters, even within a single province or region, water pollution may fall under several ministers depending on the source of the pollution. Such diffuse responsibility for pollution lowers the probability that protests will succeed while also increasing the risk of contentious action. The newly instituted "green courts" were specifically empowered to try to address some of these issues, but to-date have refused to confront major polluters.[195]

The final category, fear of EM radiation, accounted for only 3 of 47, or 6 percent, of the total identified protests and two of the three reported protests took place in the same city, Shanghai.[196] The third was in the neighboring province of Zhejiang.[197] In all three protests, the primary fear was radiation, but these fears stemmed largely from a lack of understanding of EM radiation, a lack of transparency by the government and the fact that recommended safety distances were ignored. For example, one of the Shanghai protests centered on building an extension of the magnetic levitation (maglev) train in Shanghai. Built by a German engineering company, guidelines for the current maglev line recommend the train run a minimum of 300 meters away from the nearest residence. Yet the proposed track runs no further than 100 meters from some houses,[198] and while it is unclear exactly how dangerous EM radiation from maglev trains is, many do not trust government statistics.[199] Combined with lack of government transparency and input, the concerns sparked protests.[200]

The survey of past protests covered ten years, but also interesting by comparison is the media coverage so far in 2015. Figure 5 shows how the total number of protests

---

[195] Geall and Hilton, *China and the Environment*, 98–101, 124–32.

[196] Calculations based on Figure 1; Xin Fei, "Shanghai Police Brutalize Property Owners with Pepper Spray and Tear Gas," *Reposted from The Epoch Times*, December 3, 2007, http://infowars.net/articles/december2007/031207Shanghai.htm; Elaine Kurtenbach, "Shanghai Residents Protest Maglev Train," *USA Today*, January 14, 2008, http://usatoday30.usatoday.com/news/world/2008-01-14-3865316371_x.htm.

[197] Anthony Tao, "Villagers Clash With Police Over Proposed Power Plant, Flip Over Vehicles [VIDEO]," *Beijing Cream*, November 22, 2012, http://beijingcream.com/2012/11/villagers-clash-with-police-over-proposed-power-plant-flip-over-vehicles-video/.

[198] Lan Xinzhen, "The Maglev Dispute," *Beijing Review*, June 24, 2010, http://www.bjreview.com.cn/quotes/txt/2010-06/23/content_280715.htm.

[199] Kurtenbach, "Shanghai Residents Protest Maglev Train."

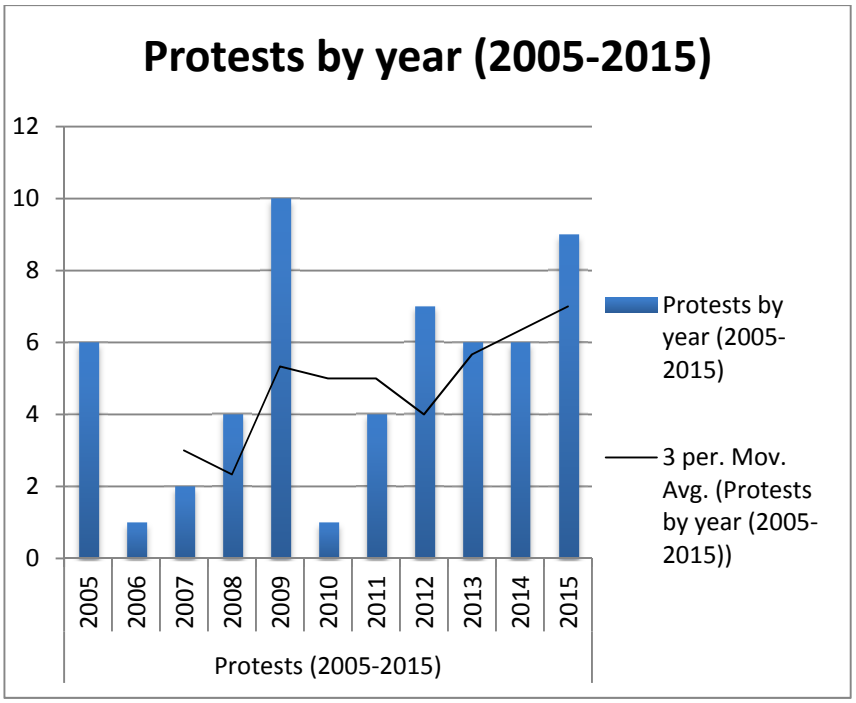
[200] Ibid.

reported has increased along with a three-year average trend line. The accompanying table shows the number of total protests by year.

2. Data Trends

Figure 5. Protests Over Time (2005–2014, 2015)

Year	Protest
2005	6
2006	1
2007	2
2008	4
2009	10
2010	1
2011	4
2012	7
2013	6
2014	6
2015	9



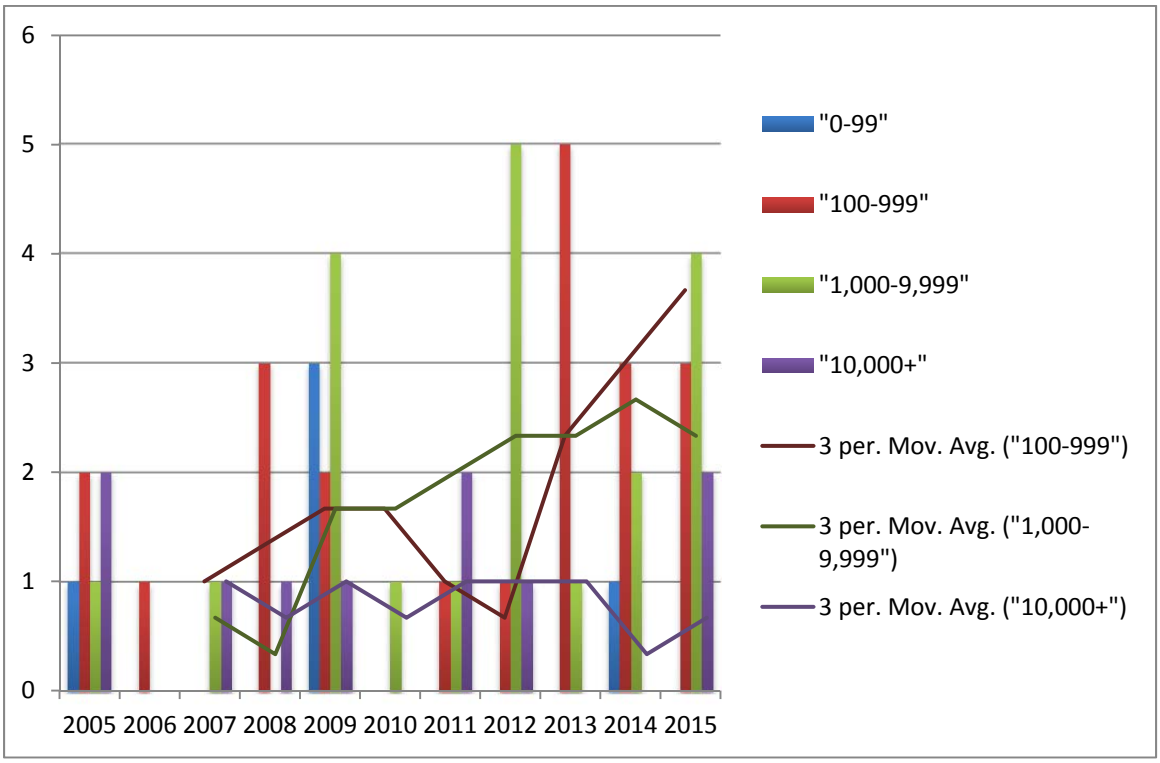
Source: "Chinese Environmental Protests (2005–2014)," see Appendix.

The number of protests seems to have gone up in aggregate over the years, yet there is no correlation year-to-year. While the numbers of mass incidents are growing annually, the disparity between total growth and the annual numbers suggest two possible explanations. One explanation for this disparity might be that the number environmental protests fluctuate rapidly depending on the year. A second, and more probable explanation is that the number of protests reported outside of local media or leaked beyond the city or province of origin varies depending on outside variables. Such variables may include but are not limited to presence of independent or citizen journalists, level of government censorship, or penetration of Internet or social media in the area. Encouragingly, the number of protests reported so far for 2015 (January-June) almost equal the previous high year (2009). The high number of reported protests, and the

tone of media coverage, may indicate willingness of the government to tolerate increased pressure on environmental issues or conversely, it may show an inability of the government to adequately respond to environment related demands.

Figure 6 breaks down the protests showing the relevant size of protests in comparison to the year in which the protest was held.

Figure 6. Size of Protests by Year



Source: "Chinese Environmental Protests (2005–2014)," see Appendix.

The size of any given protest appears to vary widely without any discernable pattern over time, location, or issue. Most protests appear to be local issues, sparked by "not in my backyard" (NIMBY) fears. There is occasional reference of successful or semi-successful protests within a given region encouraging other protests[201] and at least

[201] Pearce, "As China's Pollution Toll Grows, Protesters and Media Push Back."

one protest cited a secondary cause as "lending support"[202] to protesters arrested in a separate city. While protests come in waves and cycles, there is only a little evidence that the protests in China have built on each other or are connected, despite the growth of social media as a tool theoretically capable of connecting protestors.

B. PROTESTS IN COMPARISON TO DEMOGRAPHIC AND ECONOMIC DATA

In many protests, an individual's reasons for joining a protest may differ from the reason stated by a protest's leaders and one issue may spark a protest, but as it grows, it might absorb multiple issues, create new issues, or become increasingly radical in its demands.[203] This section will look at the protests in comparison to outside variables such as political opportunity and location, level of environmental degradation, internal migration, and economic factors including the following: levels of income, gross regional product, percentage of GRP from industry, and unemployment.

1. Distance from Beijing (Political Control)

Traditional political history of China is a cycle of dynasties stretching across thousands of years of history. As dynasties waxed and waned throughout history, so too did the level of influence and control over its outer territories. From this cycle came the idiom that "the mountains are high and the Emperor is far away." Although the level of central control exerted by Mao contradicted the idiom, as Deng Xiaoping's economic reforms began to take root, local authorities began to again gain greater latitude in their decision-making and enforcement, particularly over economic issues. Table 1 indicates that while not a 1:1 correlation, distance from Beijing is a contributing factor.

---

[202] Demetri Sevastopulo, "China PX Plant Protests Spread to Provincial Capital Guangzhou," *Financial Times*, April 1, 2014, http://www.ft.com/intl/cms/s/0/cf6594fa-b98d-11e3-957a-00144feabdc0.html#axzz3fX7FGVZn.

[203] Sidney G. Tarrow, *Power in Movement: Social Movements and Contentious Politics*, Rev. & updated 3rd ed., Cambridge Studies in Comparative Politics (Cambridge; New York: Cambridge University Press, 2011), 103, 144–47, 199–203.

Table 1. Distances (in miles) from Beijing to the Provincial Capital

Capital City, Province	Distance to Beijing	Number of Protests in Province
Beijing, Beijing	0	1
Tianjin, Tianjin	70.71	1
Shenyang, Liaoning	389.72	1
Xi'an, Shaanxi	566.16	1
Nanjing, Jiangsu	558.1	2
Shanghai, Shanghai	663.16	4
Hangzhou, Zhejiang	698.07	9
Nanchang, Jiangxi	775.89	1
Changsha, Hunan	837.77	4
Chengdu, Sichuan	943.06	4
Fuzhou, Fujian	969.89	7
Guangzhou, Guangdong	1173.45	9
Nanning, Guangxi	1270.85	1
Kunming, Yunnan	1297.11	1
Haikou, Hainan	1804	1

Data collated from maps[204] and distance calculators.[205] For data on number of protests per province, see Appendix.

While distance does appear to be a factor, an interesting correlation appears centered on the North-South divide, with the eastern end beginning on the northern border of Shanghai. The number of protests reported north of Shanghai appears to be single instances, not a recurring pattern. Starting in Shanghai, however, and continuing into the southern, coastal provinces, the number of reported protests grows. The number of protests within a particular province is not static over the decade, but the number of protests appears to be increasing, not just number of locations, but also in frequency—particularly within the southern provinces.

204 "List of Chinese Provinces and Regions—Wikitravel," *Wikipedia*, accessed July 18, 2015, http://wikitravel.org/en/List_of_Chinese_provinces_and_regions.

205 "Distance Between China Cities," *Distancefromto.net*, accessed July 18, 2015, http://www.distancefromto.net/cities/China; "Flying Distance between Hainan and Beijing," *HowManyHours.com*, accessed July 18, 2015, http://www.howmanyhours.com/flight_distance/hainan/beijing.php.

2. Internal Migration

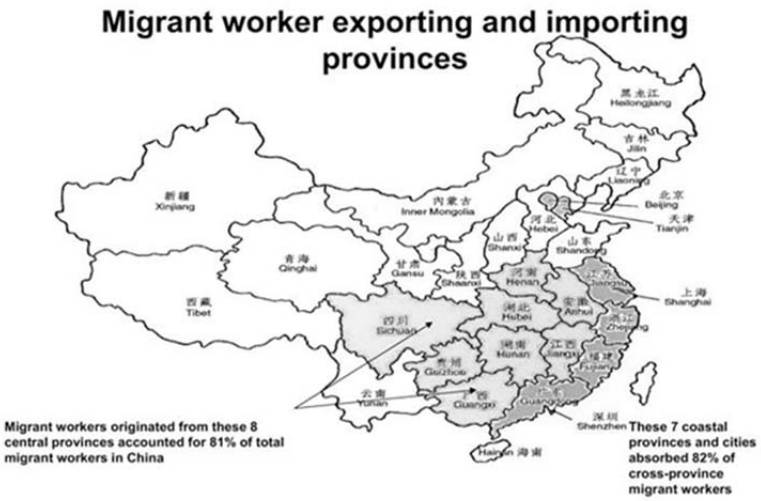
Since the opening of reforms, China's economic engines have relied on the large pool of domestic labor to feed its early growth.[206] This has led to a huge "floating population—over 100 million and growing."[207] Yet, because of its reliance on this floating population to continue economic growth on one hand and growing inequality stemming from the *hukou* system on the other, internal migration contributes to governmental fears of instability.[208] Figure 7 shows two maps of migration patterns in the early 1990s and 2006

[206] Ligang Song and Wing Thye Woo, eds., *China's Dilemma: Economic Growth, the Environment and Climate Change* (Canberra] : [Washington, D.C.] : [Beijing, China: Anu E Press : Asia Pacific Press ; Brookings Institution Press ; Social Sciences Academic Press (China), 2008), 110–14.

[207] Lieberthal, *Governing China*, 296–97.

[208] Ma, "China's 20 Percent Problem"; Susan Shirk, *China: Fragile Superpower* (Oxford, UK: Oxford University Press, 2008), 29–31, 52–55.

Figure 7. Map of China's Internal Migration 1990–1995 and 2006



Source (top): Sandra Poncet and Nong Zhu, "Country People Moving to the Cities: The Migratory Dynamic," China Perspectives [Online], 62 (November to December 2005)[209] (bottom) China's Migrant Workforce—A Special Report.[210]

---

[209] Sandra Poncet and Nong Zhu, "Country People Moving to the Cities: The Migratory Dynamic," *China Perspectives*, no. 62 (December 1, 2005), http://chinaperspectives.revues.org/547.

[210] Sam Stearman, "China's Migrant Workforce—A Special Report," Personal website, *SamSays*, accessed July 17, 2015, http://www.samsays.com/SIP-CBA1.htm.

The above maps (Figure 7) demonstrate similarities of migration patterns between the first map (1995) and the second (2006). Many of these internal migrants moved to other provinces through an institutionalized, but informal network of friends and relatives who would assist the migrant in acquiring work.[211] The regions these migrants leave represent some of most polluted and leave fewer people behind who could protest. While this explanation one possible correlation, further research is required before any stronger causal links could be drawn.

3. Levels of Environmental Degradation

A testament to the level of environmental degradation, environmentalists have mapped the location of some of China's "cancer villages." A cancer village is an area dominated by a factory or industrial complex where the soil and water are severely contaminated, often by heavy metals.[212] These areas, largely rural, have extremely high rates of cancer, usually either related to respiratory or stomach ailments.[213] "In 2010, Chinese journalist Deng Fei published a map highlighting a number of China's 'cancer villages'"[214] and Figure 8 compares the recorded location of cancer villages against the location of reported protests.

---

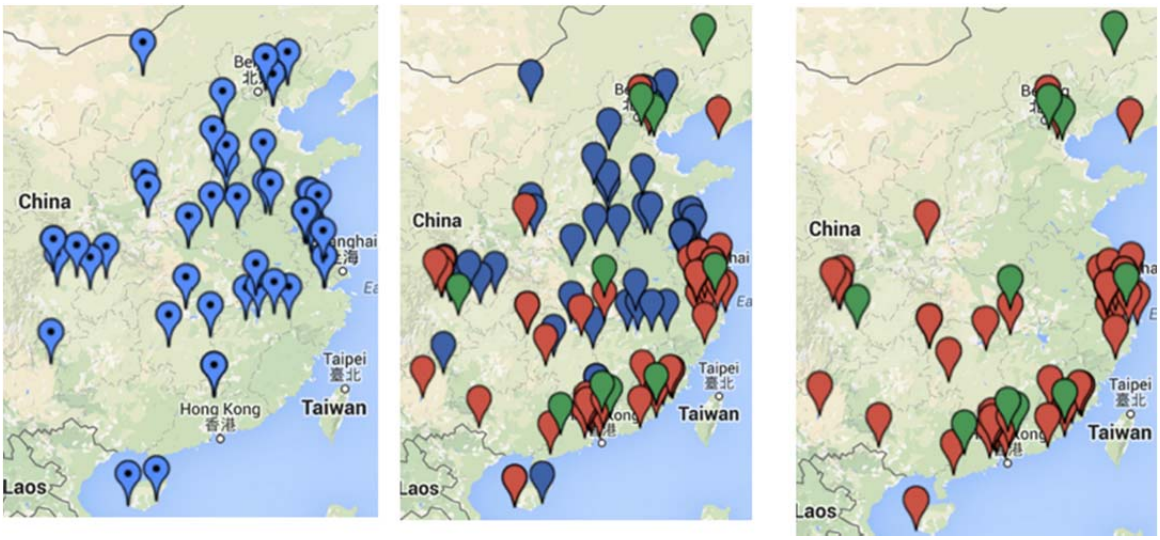
[211] Goldman and MacFarquhar, *The Paradox of China's Post-Mao Reforms*, 228–235, 237–9.

[212] Souvid Datta, "Photographs of China's 'Cancer Villages,'" *VICE*, January 15, 2015, http://www.vice.com/read/photographs-of-chinas-cancer-villages.

[213] Yang Fan and Wen Yuqing, "Thousands Protest High Cancer Rates Linked to Pollution in China's Tianjin," trans. Luisetta Mudie, *Radio Free Asia*, May 27, 2015, http://www.rfa.org/english/news/china/pollution-05272015150247.html; Deng Fei, "China's Cancer Villages," *Google Maps*, accessed July 27, 2015, https://www.google.com/maps/d/viewer?mid=zoltdQ3AnjHQ.kJGsxnMyxV3c&hl=en_US; Guangwei, "China's Dirty Secret."

[214] Fei, "China's Cancer Villages."

Figure 8. Map of Cancer Village Locations versus Sites of Protest



"Cancer villages" (Left); Composite (Center); Protests (Right)Red = 2005-2014 / Green = 2015

Source: (Left) From: Fei, "China's Cancer Villages [215]; (Center) After: Fei, "China's Cancer Villages"; (Right) "Chinese Environmental Protests (2005–2014)," see Appendix

In Figure 8, one possible measure for environmental degradation is shown (at left). The blue markers show some of the most concentrated areas of environmental degradation and many of these areas correlate to arable farmland where China's food is grown. The red and green markers are the reported locations of various protests. Despite an almost equal number of blue and red markers, there is a large disparity between their locations.

One explanation is the theory of generational memory or "shifting baseline syndrome." This is the observation of how people within an area will lose perspective on ecological conditions due to a lack of inter-generational communication.[216] Combined with the slow creep of environmental degradation over years where the severity of the degradation is unrecognized and the younger generation sees the condition as normal.[217] Alone, this theory is insufficient to explain the disparity; however, when combined with

215 Fei, "China's Cancer Villages."

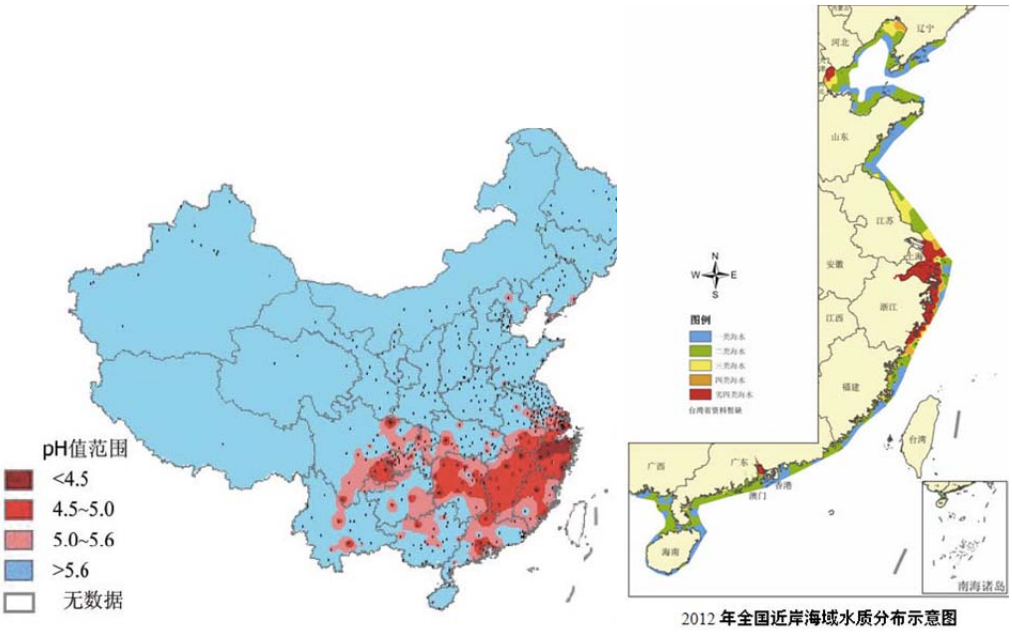
216 Geall and Hilton, *China and the Environment*, 36.

217 Ibid., 37.

the analysis from Table 1, another explanation is that the political opportunity for protest is much smaller in the areas of cancer villages.

Although cancer villages offer one way of measuring environmental degradation, particularly soil pollution, there are other ways to measures environmental degradation. The maps in Figure 9 were correlated by the ENGO IPE and include levels of acidity in rainfall and coastal water quality.

Figure 9. Acid Rain (Left) and Coastal Water Quality (Right)



Left: Acid rain in China by increasing of acidity; Source: Right: 2010 National Water Quality in Distribution Map; Source: "2012 Environment in China," People's Republic of China Ministry of Environmental Protection, from http://www.ipe.org.cn/En/pollution/picture5.aspx?cid=89&space=

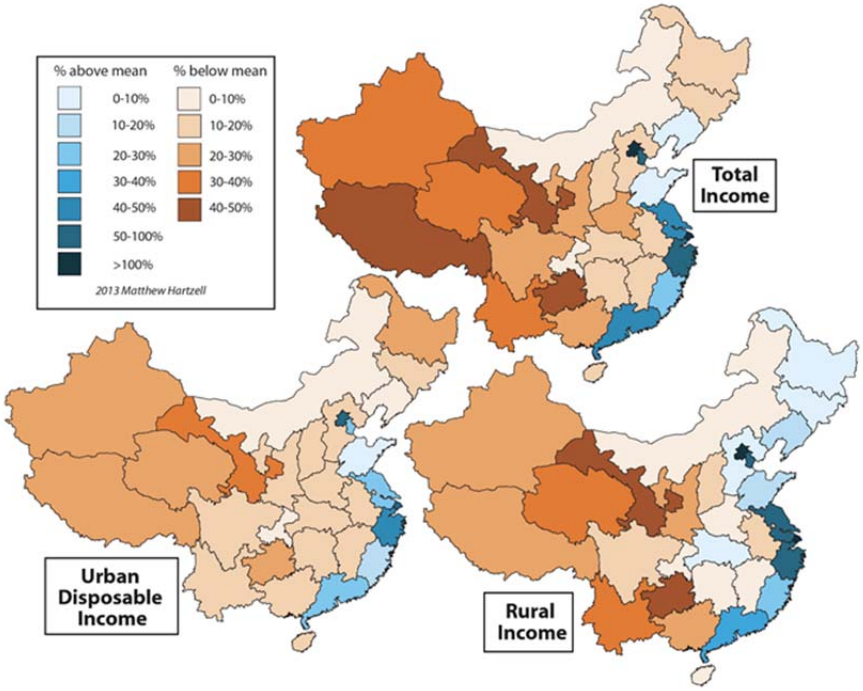
Levels of acid rain and poor coastal water quality correlates more to the location of protests shown in Figure 8, but are still insufficient as causation alone. When the data from Figures 8 and 9 is combined with the data in Figure 10, however, the relationship between environmental degradation, economics, and protest can be seen.

4. Economic Explanations

In a 2007 article, SEPA Deputy Minister, Pan Yue commented that "the main reason behind the continued deterioration of the environment is a mistaken view of what

counts as political achievement." In his view, political achievement at the local and provincial levels has become tied to economic indicators. Minster Pan Yue continued, arguing that until "the crazy expansion of high-polluting, high-energy industries [which have] spawned special interests" within local governments and business are no longer able to "treat the natural resources that belong to all the people as their own private property,"[218] China cannot fix its environmental issues. Figure 10 shows the economic disparities between the different provinces.

Figure 10. Economic Data Maps of China



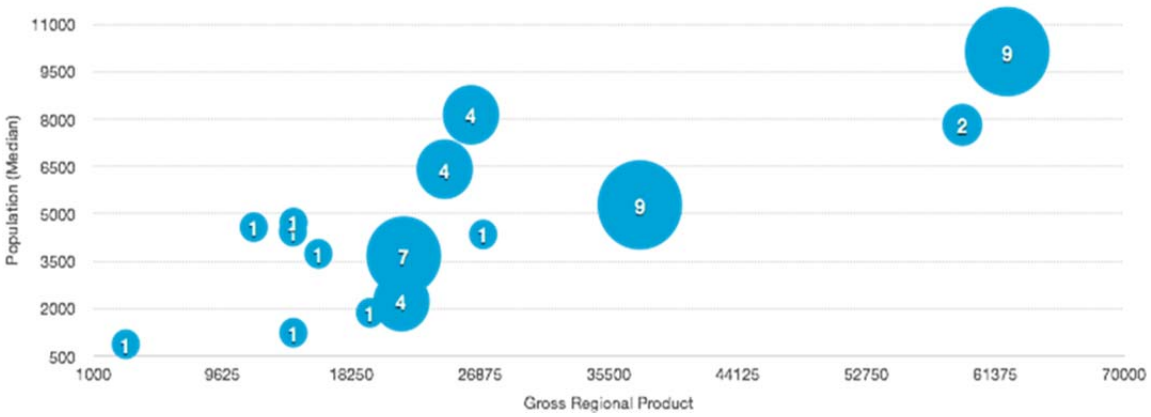
From: Matthew Hartzell, "Maps: China's Uneven Economic Development," *Matt* Hartell's China *Blog*, September 11, 2013, http://matthartzell.blogspot.com/2013/09/chinas-economic-disparityin-maps.html.

Social movement theory argues that most protests, and large scale-movements in particular, require a certain level of income before becoming viable. This theory contends that sufficient resources, today equated to the middle class, are necessary for protests to

218 Kahn and Yardley, "As China Roars, Pollution Reaches Deadly Extremes."

evolve.[219] This seems to correlate with Figures 7, 8, and 9 to show why the majority of protests occurred in the coastal provinces, which are also among the provinces with the highest levels of disposable income—urban and rural. Figure 11 shows the range of income versus population levels as factors and the size of the circle correlates to number of protests within the province.

Figure 11. Income versus Population



Source: "Chinese Environmental Protests (2005–2014)," see Appendix.

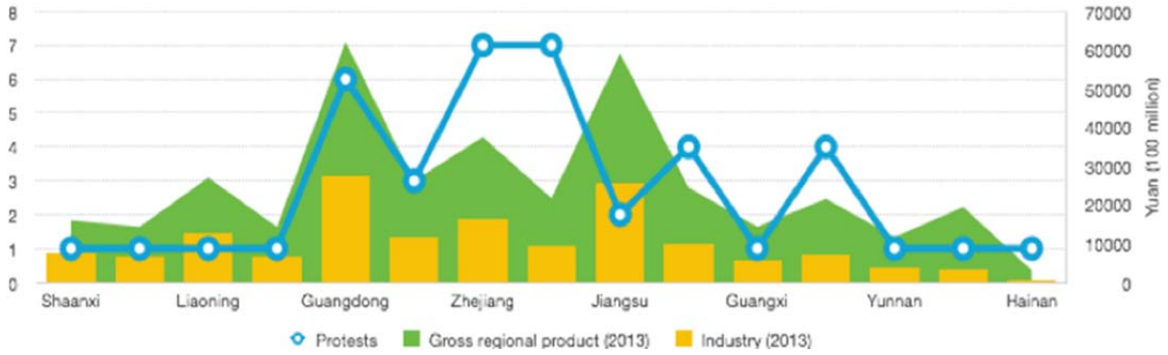
The size of the province, by total population, does not appear to correlate to the number of protests within a given province. While population size does not correlate, there seems to be slight correlation between protests and the level of gross regional product of the province (GRP). This provides support for the theory that a level of wealth is necessary before mass protests. Of note, is the gap, slightly right of center, in which no protests occur. The primary reason is that wealth of provinces jumps from approximately 37 billion Yuan to approximately 59 billion Yuan.[220] According to Chinese official data, there is a single province in between this gap, at approximately 54 billion Yuan, Shandong, but no protests were mentioned in this province during the timeframe,

[219] Walton and Seddon, *Free Markets & Food Riots*, 27; Jianqiang, "China's New Middle Class"; Matt Schiavenza, "Mapping China's Income Inequality," *The Atlantic*, September 13, 2013, http://www.theatlantic.com/china/archive/2013/09/mapping-chinas-income-inequality/279637/.

[220] Yuan approximations derived from Figure 10.

possibly due to its location between Beijing and Shanghai.[221] The level of GRP within a province is an important economic indicator, but in China, the percentage of GRP contributed by industry, shown in Figure 12, is directly proportional to the regional GRP for the listed provinces.

Figure 12. Industrialization

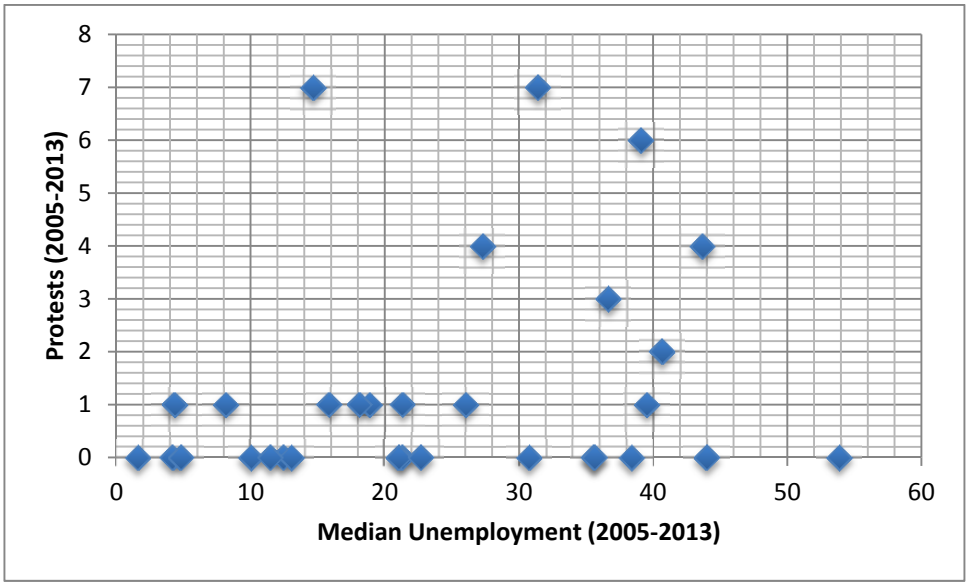


Source: "Chinese Environmental Protests (2005–2014)," see Appendix.

Although the idea of industrialization as a factor would seem intuitive, Figure 12 shows that level of industrialization is not as relevant as GRP. The greatest outlier, Jiangsu, contains both a high GRP and a high level of industrialization, yet is north of Shanghai. Therefore, combining Figure 12 with Table 1 (Distance from Beijing) explains the difference in protest numbers between Guangdong and Jiangsu, which have similar GRP and industrialization levels. This indicates that economic factors being equal, distance from Beijing becomes a more prominent indicator of whether or not protests will occur. (There is also the possibility that distance from Beijing is less an indicator of a protest occurring, as it is an indicator of the protest being reported in the media.) The final economic factor discussed is the percentage of unemployment, shown in Figure 13.

221 "China Statistical Yearbook-2014," accessed July 16, 2015, http://www.stats.gov.cn/tjsj/ndsj/2014/indexeh.htm.

Figure 13. Unemployment Percentage versus Protests



Source: "Chinese Environmental Protests (2005–2014)," see Appendix.

$$r = \frac{\sum_i (x_i - \overline{x})(y_i - \overline{y})}{\sqrt{\sum_i (x_i - \overline{x})^2}\sqrt{\sum_i (y_i - \overline{y})^2}}$$

"The value of R is 0.2224. Although technically a positive correlation, the relationship between your variables is weak (the nearer the value is to zero, the weaker the relationship). The value of R^2, the coefficient of determination, is 0.0495."[222]

Based on Figure 13, the majority of protests appear to be in provinces that have between 2–4 percent unemployment. Yet, just as many provinces with similar levels of unemployment had zero protests. Both the graph and the statistical test suggest that unemployment is not a significant factor in explaining the presence of environmental protests.

C. CONCLUSION

The series of figures and tables in Chapter III show that there is no single factor, but instead a variety of factors that affect the size and frequency of protests. Without further research and larger data sets, this analysis indicates general trends and the elimination of unemployment as a relevant variable. While conclusive statements cannot be drawn yet from the available information presented here, the combination of several

222 "Pearson Correlation Coefficient Calculator," accessed August 31, 2015, http://www.socscistatistics.com/tests/pearson/Default2.aspx.

graphs, particularly provincial wealth (Figure 10), economic degradation (Figures 8 and 9), and distance from Beijing (Table 1) begin to offer strong hypotheses why protests occur more frequently in some areas rather than others. Using social movement theory, and drawing heavily from the experience of food riots, both early modern and contemporary, Chapter IV will offer a qualitative analysis as to how the data fits into with the wider literature.

IV. CHINA'S ENVIRONMENTAL PROTESTS, FOLLOWING THE PATTERN

Over the last half-century, China has undergone two radical transformations, from "sick man of Asia" to totalitarian communism to a semi-authoritarian state with a free market economic system. The economic transformation from communist state-led to a majority market-based system was a gradual process affecting all segments of state and society. Like all industrialized nations, the environment suffered heavily as China modernized but over the last decade, the Chinese have begun to understand the societal cost of environmental pollution. Environmental protests are one of the top three triggers of street protests in China and government officials are increasingly vocal about the need to clean up the environment.[223]

Chapter III analyzed the quantifiable characteristics of Chinese environmental protests from the given dataset. The most interesting conclusion was the apparent lack of causation between incidents of protest and either unemployment or overall level of environmental degradation. According to this data, the two greatest single indicators of whether or not a protest may occur appear to be the distance from Beijing and the economic level of the province. What does this mean for why and when Chinese protest? This chapter will explain the characteristics of the Chinese street protests and how China's environmentalism has evolved to become a nascent environmental movement by utilizing comparative data with social movements worldwide.

A. SOCIAL MOVEMENT THEORY WITH CHINESE CHARACTERISTICS

The study of social movements is related to the broader category of contentious politics. Contentious politics can be defined as the collective action of regular citizens acting to confront opponents or authorities.[224] If sustained over time and solidified around a specific issue or narrative, such collective action may coalesce into a social

223 "Chinese Anger Over Pollution."

224 Tarrow, *Power in Movement*, 6.

movement.[225] As recently as 2006, some authors argued that China's environmentalism had not yet met the definition of "sustained" and thus was not an environmental movement.[226] While the many environmental protests remain sporadic and geographically limited, the increasing frequency of environmental protests, particularly the comparative frequency of PX protests (Chapter III, Figures 1–2) and signs of "sister protests" indicate that China's environmentalism is a nascent environmental movement, more analogous to food riots than the environ-democratization movements in Eastern Europe.[227] Although there are various ways to describe the diverse nature of social movements, this chapter focuses on those facets of social movement theory, which best explains Chinese environmental protests.

While the Chinese often use the phrase "Chinese characteristics" in relations to many of their endeavors, the overarching characteristics of Chinese protests are similar to other social movements and not specifically unique to China. Any single protest, in any given country, can be sparked by a host of variables, but if viewed within a larger framework or over an extended time period patterns may emerge. For example, a single protest may be spontaneous, but repeated protests within a limited geographic area or a single protest sustained over several days, shows a degree of organization. Chinese environmental street protests are episodic but there is a growing continuity and connectivity between protestors, ENGOs, government officials, and wider society. At times, these protests have also shown a minimum level of organization, maintaining occupation of compounds or sustaining street protests for several days[228] The analysis

---

[225] Ibid., 6–9.

[226] Phillip Stalley and Dongning Yang, "An Emerging Environmental Movement in China?," *The China Quarterly* 186 (June 2006): 336–37, doi:10.1017/S030574100600018X.

[227] Sevastopulo, "China PX Plant Protests Spread to Provincial Capital Guangzhou"; Walton and Seddon, *Free Markets & Food Riots*; Ho, "Greening Without Conflict?," 896.

[228] Yanhua Deng and Kevin J. O'Brien, "Relational Repression in China: Using Social Ties to Demobilize Protesters," *The China Quarterly* 215 (September 2013): 533–52, doi:10.1017/S0305741013000714; "Residents Take over a Polluted Factory in Zhejiang," *AsiaNews.it*, July 1, 2005, http://www.asianews.it/news-en/China:-residents-take-over-a-polluted-factory-in-Zhejiang-3620.html; Wade, "Protests Win Written Pledge"; "China Waste Plant Protest in Hangzhou 'Injures Dozens,'" *BBC News*, May 11, 2014, sec. Asia, http://www.bbc.com/news/world-asia-china-27360779; Sevastopulo, "China PX Plant Protests Spread to Provincial Capital Guangzhou."

here suggests that the Chinese environmental movement may to be shifting from single, episodic NIMBY protests to a sustained social movement with national scale.

Although the "Chinese characteristics" of the environmental movement are similar to other social movements, modern China's attempts to combine Marxist-Leninist philosophy, Mao Zedong Though and Deng Xiaoping's modernizations have created a unique political philosophy. This political ideology demonstrates a contradiction useful for framing China's environmental protests—a fundamental dichotomy between centralized political control and the importance of the masses. Under this ideology, leaders claim that "consultation of the masses [is] indispensable for policy making and implementation"[229] while simultaneously arguing that all reforms must be state-led and driven from the top-down. This dichotomy is rooted deeply in the Chinese psyche. Collective bargaining and contentious politics have a long tradition in Chinese history, and Communist ideology, in theory, institutionalizes contentious politics through mass campaigns and mobilizations.[230] In practice, however, Communist regimes have strongly opposed any mass participation that challenged the ruling elite.[231] To prevent a strong government response, the rhetoric of environmental protests is couched in specifically apolitical language.[232] The most successful protests seem to be those aimed at multi-national companies (MNCs).[233] MNCs have less political backing and may be seen as a

---

229 Xi Chen, *Social Protest and Contentious Authoritarianism in China* (Cambridge University Press, 2014), 14.

230 Ibid., 40.

231 Ibid., 4.

232 Thompson, *Customs in Common*, 208; Kevin J. O'Brien, "Rightful Resistance Revisited," *Journal of Peasant Studies* 40, no. 6 (November 2013): 1051–62, doi:10.1080/03066150.2013.821466.

233 Zhang and Barr, *Green Politics in China*, 81–2; Geall and Hilton, *China and the Environment*, 145–150.

Two of the biggest successes are the fight between IPE's Green Alliance and Apple and Tenglong Aromatic PX plant in Xiamen. In the first case, Apple initially ignored evidence of pollution from their Chinese suppliers until the alliance grew to include two American NGOs at that time Apple conceded to conduct independent environmental assessments. The second case was a controversial PX plant planned for construction in Xiamen, Fujian by a Taiwanese businessman. The businessman's domestic political connections began to fail shortly before the protests began, and the plant was eventually moved twice before settling in a poorer area of Fujian province.

more acceptable target by both protestors and officials.[234] Unfortunately, the dataset for this thesis is not sufficient to conclude if a company's status as an MNC opens it to more protests than other polluters.

Growing under the shadow of an authoritarian state, the Chinese environmental movement can be characterized as a norm-oriented, reformation focused movement.[235] There is a preference to work from within the system for limited reforms. Despite this preference for working from an embedded position within the existing structure, the existence and occurrence of street protests indicate that people are also willing to work outside the system in extra-institutional ways when the system fails.[236] Since 2007, when Ho and Edmonds argued that China's environmental movement could not be considered a traditional social movement, Chinese society seems increasingly willing and accustomed to extra-institutional action.[237] While the major environmental actors remain embedded on a continuum between full autonomy and state-control, there are signs that the fragmented nature of the environmental movement is changing. Signs of connectivity are increasingly apparent.[238] Although leaders among the environmental movement's diverse groups operate independently, their efforts often appear to be coordinated to serve the aggregate.[239] While there are increased signs of coordination, the movement is unlikely to develop a single leader as to do so invites too much government attention and may

---

[234] Zheng Caixiong, "Refining Giant: Sinopec Links with Kuwait Petroleum," *China Daily*, June 30, 2014, http://www.chinadaily.com.cn/cndy/2014-06/30/content_17623027.htm; "People vs. Chemical Plant," *China.org.cn*, January 14, 2008, http://www.china.org.cn/english/environment/239503.htm; "NIMBY Protests: A Timeline of NIMBY Protests," *China Story*, accessed July 10, 2015, https://www.thechinastory.org/yearbooks/yearbook-2013/forum-land-law-and-protest/nimby-protests/; Liu Linlin, "Japanese Paper Factory Center of Protest," *Global Times*, July 27, 2012, http://www.globaltimes.cn/content/723643.shtml.

[235] McAdam and Snow, *Readings on Social Movements*, 1–4.

[236] Ho and Edmonds, "Perspectives of Time and Change."

[237] Ibid., 333.

[238] Sevastopulo, "China PX Plant Protests Spread to Provincial Capital Guangzhou"; Thomas Johnson, "The Health Factor in Anti-Waste Incinerator Campaigns in Beijing and Guangzhou," *China Quarterly* 214 (June 2013): 356–75, doi:10.1017/S0305741013000660; Geall and Hilton, *China and the Environment*, 71–2.

[239] Johnson, "The Health Factor in Anti-Waste Incinerator Campaigns"; Economy, *The River Runs Black*, 176; Zhang and Barr, *Green Politics in China*, 81–2; Geall and Hilton, *China and the Environment*, 71–5.

ultimately weaken the movement due to the socio-political constraints of reform within a semi-authoritarian system.

Although reform orientated, the growing social movement is increasingly contentious. The Chinese environmental movement's lack of historical precedent for care of the environment or strong enforcement means that the demands are proactive in nature, even if they are cloaked in reactive language.[240] A proactive movement is one in which the demands of protestors are for new or expanded rights, enforcement, or legislation. A truly reactive movement would be one that wished a return of a previous status quo arrangement between government and populace. Therefore, China's environmental protests are proactive because they are demanding the enforcement of laws inconsistently enforced, if enforced at all. Yet, they cloak their demands in the language of a reactive protest, seeking redress for rights he has been deprived of, but never actually had claim to previously.[241]

As awareness of environmental consequences increases and the state of the environment continues to decrease, more Chinese citizens are starting to see the potential loss equated with failing to clean up the environment.[242] Combined with the easing of civil society regulations and opportunity over the last decade, bolder actions such as street protests appear to have grown. Another factor in the assessment of risk may stem from the narrative chosen by environmentalists as one that does not seek to overthrow the current way of life, but instead restore China's environment to a previous (ideal) state.[243]

B. CHINA'S GROWING ENVIRONMENTAL MOVEMENT

China is a single-party semi-authoritarian state, but street protests occur, often without outside attention. Since the start of reforms in the 1980s, the number of "mass

---

240 O'Brien, "Rightful Resistance Revisited," 1057–8.

241 Ibid., 1057.

242 G. Yang and C. Calhoun, "Media, Civil Society, and the Rise of a Green Public Sphere in China," *China Information* 21, no. 2 (July 1, 2007): 211–36, doi:10.1177/0920203X07079644; "Chinese Anger Over Pollution"; "Environmental Protests in China," *Facts and Details*, January 2014, http://factsanddetails.com/china/cat10/sub66/item1895.html#chapter-2; Cody, "China's Rising Tide of Protest Sweeping Up Party Officials."

243 McAdam and Snow, *Readings on Social Movements*, 27.

incidents" in China has grown.[244] While "mass incidents" covers a broad spectrum of collective action, from a few peasants submitting petitions to the local government to street demonstrations or clashes with police, the focus of this thesis is on the growing number of street protests. Although many remember the tragedy of June 4, 1989 in Tiananmen Square, Beijing, Tiananmen was only one of dozens of protests subdued that week.[245] Immediately following the crackdown, there seems to have been a lull in the number of mass incidents, but in the last decade and a half, this number has begun to grow again.[246]

Many of the street protests documented for this study were sparked by local fears of increased pollution. These NIMBY-style protests were a reaction to a perceived threat to community health.[247] A second, smaller category of protests were those in response to an accident that disrupted the routine and was an obvious case of negligence rather than an honest error or "act of God,"[248]

Although there are always reasons for people to protest, there have been relatively few social movements with sustained protests throughout history. Numerous protests are not, of themselves enough to form a social movement. There must be an overarching narrative (or frame), coordination, sustained mobilization, and the sharing of resources.[249] In China, environmental street protests have been occurring sporadically for over a decade, with ENGOs providing resources, networks, and awareness for two decades. Together, they have begun coalescing into a sustained movement. One of the greatest challenges facing the future of the Chinese environmental movement is how to

---

244 "Chinese Anger Over Pollution"; "Protests in China: The Cauldron Boils," *The Economist*, September 29, 2005, http://www.economist.com/node/4462719; "Beneath the Glacier."

245 Zhang, Nathan, and Link, *The Tiananmen Papers*, 398.

246 "The Cauldron Boils."

247 McAdam and Snow, *Readings on Social Movements*, 19.; For more information see Appendix: Table 2—Chinese Environmental Protests (2005–2014)

248 Ibid.; Howard W. French, "Anger in China Rises Over Threat to Environment," *The New York Times*, July 19, 2005, http://www.nytimes.com/2005/07/19/world/asia/anger-in-china-rises-over-threat-to-environment.html; "Chemical Plant Boss Held over Sudden Deaths," *China.org.cn*, August 3, 2009, http://www.china.org.cn/environment/news/2009-08/03/content_18253670.htm; Sharon Lafraniere and Michael Wines, "Plant Protest Shows China's Officials Under Pressure," *New York Times*, August 15, 2011, sec. World / Asia Pacific, http://www.nytimes.com/2011/08/16/world/asia/16dalian.html.

249 Tarrow, *Power in Movement*, 118, 142–44.

shift from the current dependency on charismatic leaders to a decentralized, networked group of activists. Finally, within the last few years, the framing portion of the movement has begun to emerge in a way that borrows government rhetoric and brings people into the streets.

1. Issues: Why Are the Chinese Protesting?

What issues cause people to protest and which ones do not draw people into the street? Why protest PX and waste incinerators, but not air quality? If water and soil pollution is as bad as some Western environmentalists claim, why are there not more protests related to soil and water?[250]

People do not resort to street protests because of lax enforcement, or in response to government inaction alone. Street protests are most often a response to disruption in either the daily *status quo* or when a moral outrage has reached the point where it can no longer be ignored.[251] The cause of any riot or protest therefore, is neither natural nor obvious.[252] During bread riots, it is not the most hungry and desperate who protest. Rather those who still have something to gain by acting in "a sophisticated pattern of collective behavior, a collective alternative to individualistic and familial strategies of survival."[253]

According to Hobsbawm, in Western Europe between the mid-1500s to mid-1800s, food riots were the most common forms of collective bargaining. Other riots, over religion, land, elections, labor, and military conscription, also occurred but by the 1800s food riots were the most frequent.[254] Similarly, in China, although protests are not often

---

250 Kahn and Yardley, "As China Roars, Pollution Reaches Deadly Extremes."

251 "Environmental Protests in China"; "China Urban Warfare in Fujian between 10 Thousand Inhabitants and the Police," *AsiaNews.it*, September 2, 2009, http://www.asianews.it/news-en/Urban-warfare-in-Fujian-between-10-thousand-inhabitants-and-the-police-16210.html; "Protest against Suspected Lead Pollution Continues in E China English"; Xiaodong and Guoyao, "Locals Attack Factory in South-East China after Child Lead Poisonings"; Pearce, "As China's Pollution Toll Grows, Protesters and Media Push Back."

252 Thompson, *Customs in Common*, 266.

253 Ibid.

254 Walton and Seddon, *Free Markets & Food Riots*, 25.

termed riots, similar subjects often spark a protest, including land and labor.[255] During early modern European bread riots, the state imposed free market capitalism and removed protectionist practices. People responded with outrage and protests.[256] The riots were often a response to reforms that eliminated protection for consumers.[257] A similar dynamic occurred in modern food riots.[258] In China, environmental protests are not a response to removed protection, but a response to inconsistent follow-through on existing laws.

Protests, such as the protest against a chemical factory in Dalian after a typhoon broke the Pacific sea wall, exemplify the concept "disruption of the quotidian."[259] The quotidian is the everyday routine or daily life.[260] If this routine is disrupted by an accident, obviously the result of negligence or error, not caused by natural forces there is a higher probability the incident will generate collective action.[261] In China, the level of disruption that correlates to street protests is hard to define as numerous variables, not least of which is levels of threat and opportunity, factor into the decision to contend with a semi-authoritarian state. A subset of quotidian disruption focuses on how people's perception of levels of risk change depending on whether the protests are preventing further loss or attempting to gain a benefit. Accordingly, people are less risk-averse if the result of failure is loss, but can be more risk-averse if the net outcome is gain.[262]

As ENGOs increase awareness among the average citizen of the long-term health consequences and how Western nations force companies to mitigate the worst effects, more people may be willing to initiate street protests. The protests noted in this study, show that current protests are largely sparked by an alteration to the current routine or

---

255 "The Cauldron Boils."

256 Walton and Seddon, *Free Markets & Food Riots*, 34–5.

257 Ibid., 34.

258 Ibid., 31–5.

259 McAdam and Snow, *Readings on Social Movements*, 14–24.

260 Ibid., 14.; For more information see Appendix: Table 2—Chinese Environmental Protests (2005–2014).

261 Ibid., 19.

262 Ibid., 14.

diminishment of a common good, such as clean air.[263] They are initiated to either counter a perceived future threat, or represent the breaking point of a beleaguered community.[264] The collective action taken by street protests are mostly limited attempts to prevent further degradation, not focused on the long-term need to reverse pollution.

The most interesting finding was the issues that did not draw people into the streets. For example, there were three reported instances of protests against soil pollution due to high levels of lead found in children's blood.[265] In the cases of protests against lead poisoning, the pollution had existed for years, but only recently had children begun to fall seriously ill. Combined with newly available information on lead poisoning and a lack of government response three villages resorted to street protests.[266] Yet, according to partially released government survey results, heavy metal pollution is present in approximately 16 percent of China's soil and 19.4 percent of its farmland.[267] Why are there not more incidents of protest?

Another obvious gap is the lack of street protests reported surrounding the issue of PM2.5 and city air quality. The largest number of street protests reported, were people protesting the planning or construction of a new factory not the pollution already in the

---

263 Ibid., 22, 24.

264 Minnie Chan, "Villagers angry at losing Jiangmen uranium plant deal," *South China Morning Post*, July 14, 2013, http://www.scmp.com/news/china/article/1282144/villagers-angry-losing-jiangmen-uranium-plant-deal; Winnie Zhu, "China Approves $5 Billion Sinopec-Kuwait Oil Project," *Bloomberg*, December 4, 2007, http://www.bloomberg.com/apps/news?sid=aP3B6lsQZ3QA&pid=newsarchive; "Protests Flare in Southern Chinese Town of Haimen," *BBC News*, accessed July 17, 2015, http://www.bbc.com/news/world-asia-16276349; Johnson, "The Health Factor in Anti-Waste Incinerator Campaigns"; Jonathan Watts, "Chinese Protesters Confront Police over Incinerator Plans in Guangzhou," *Guardian*, November 23, 2009, http://www.theguardian.com/environment/2009/nov/23/china-protest-incinerator-guangzhou; "Environmental Protests in China"; "Toxic Waste Sparks Violent Protest at China Factory(battery Maker)," *Free Republic*, August 22, 2005, http://www.freerepublic.com/focus/f-news/1468064/posts; Tania Branigan, "Anti-Pollution Protesters Halt Construction of Copper Plant in China," *Guardian*, July 3, 2012, http://www.theguardian.com/world/2012/jul/03/china-anti-pollution-protest-copper.

265 "Protest against Suspected Lead Pollution Continues in E China English"; Xiaodong and Guoyao, "Locals Attack Factory in South-East China after Child Lead Poisonings."

266 Pearce, "As China's Pollution Toll Grows, Protesters and Media Push Back."

267 Guangwei, "China's Dirty Secret."

air.[268] People were willing to protest the building of a new incinerator, but there are no reports of protests over having to keep children inside due to health risks.[269] Why were people unwilling to protest high levels of lead poisoning, but not the toxicity of city air?

One explanation may be that there is no focus for the anger. Without a strong narrative and a focal point, people are not willing to mobilize physically in opposition to the government. Those who protest are not people acting in isolation, but a collective response to a crisis, real or perceived.[270] Without a strong narrative, collective action may not be possible. Another explanation may be that people are willing to forego street protests in cities with active ENGOs if they feel there is a less risky route to the same goal. The absence of street protest does not mean there are no pressure on government, just that it is subtler and being done in a manner that is not reported on by newspapers or blogs. A final explanation is that the limitations of collecting the dataset used in this study hindered the ability to get a fully comprehensive view of all protests within the decade.

Neither the protests in China, nor bread riots in any age, require high levels of organization, but they do require "a consensus of support in the community, and an inherited pattern of action."[271] In both cases, protestors focused their objectives on the

---

[268] Chan, "Villagers angry at losing Jiangmen uranium plant deal"; Edward Wong, "In China City, Protesters See Pollution Risk of New Plant," *New York Times*, May 6, 2008, sec. International / Asia Pacific, http://www.nytimes.com/2008/05/06/world/asia/06china.html; Tania Branigan, "Chinese Citizens Set to Launch First Ever Environmental Lawsuit against Government," *Guardian*, July 31, 2009, http://www.theguardian.com/environment/2009/jul/31/china-residents-prosecute-government-environment; Watts, "Chinese Protesters Confront Police over Incinerator Plans in Guangzhou"; John Ruwitch, "Thousands Protest in Shanghai Suburb over Chemical Plant Fears," *Reuters*, June 27, 2015, sec. Industries, http://www.reuters.com/article/2015/06/27/china-protests-idUSL3N0ZD07K20150627; "Protests Flare in Southern Chinese Town of Haimen"; Patti Waldmeir, Leslie Hook, and Jamil Anderlini, "Ningbo Protest, Response Both Typical of China's Environmental Debate," *Washington Post*, October 29, 2012, http://www.washingtonpost.com/world/asia_pacific/ningbo-protest-response-both-typical-of-chinas-environmental-debate/2012/10/29/ac4c8e5e-21f6-11e2-8448-81b1ce7d6978_story.html; Yang Fan and Rachel Vandenbrink, "Dozens Held Over Violent Waste Incinerator Protest in Eastern Chinese City," trans. Shiny Li and Ping Chen, *Radio Free Asia*, May 12, 2014, http://www.rfa.org/english/news/china/incinerator-05122014190643.html.

[269] Chai Jing, *Under the Dome—Investigating China's Smog*, Video—YouTube, 2015, https://www.youtube.com/watch?v=T6X2uwlQGQM.

[270] Thompson, *Customs in Common*, 263.

[271] Ibid., 238.

near term and were limited in scope.[272] The support of the community and the focus on apolitical, limited goals are particularly important in Chinese street protests. One common tool to defuse an extended sit-in or protestor is for officials to contact family members. The government may then strongly suggest that family elders encourage protestors to peacefully disband, threatening to blacklist or arrest those who refuse to comply.[273] If the community and family members are not in full support, these tactics can be extremely successful.

2. Political Opportunity: When and Where Are the Chinese Protesting?

A second aspect of social movement theory, political opportunity, may explain why Chinese protest in some location and not in others. Chapter III, Figure 7, suggests that the location of protests does not directly correlate to the level of environmental degradation, but that there was a strong correlation between the number of street protests and the distance from Beijing (Chapter III, Table 1). Political opportunity is the combination of increased perception of a "set of clues that encourages people to engage in contentious politics" and decreased threat, or factors which discourage contentious politics.[274] Another variable when discussing political opportunity is risk calculation. Individuals who face loss have a much higher tolerance of risk than those who fight solely for gain. If individuals are more risk-averse when seeking gain and less risk-averse if combating potential loss, the health-risks associated with a heavily contaminated environment may exaggerate political opportunity and explain why the total number of protests seems to be rising.[275]

In China, the level of political opportunity constantly shifts, but the growth of Chinese street protests, in the past decade, indicates a growing willingness to use confrontational tactics. The most common type of political opportunity exploitation seen in Chinese protests is factional politics, either between different segments of the

---

[272] Walton and Seddon, *Free Markets & Food Riots*, 29.

[273] Deng and O'Brien, "Relational Repression in China."

[274] Tarrow, *Power in Movement*, 32.

[275] McAdam and Snow, *Readings on Social Movements*, 14, 27.

bureaucracy or between different levels of government, for example provincial versus national elites.[276] Chinese Party elites have become accustomed to manipulating the masses to their advantage in factional strife, but maintaining control of the masses is increasingly difficult. Party doctrine argues that "political power be concentrated in Party leaders," but also claims that "consultation of the masses is indispensable for policy making and implementation."[277] Street protestors often take advantage of this rhetoric when protesting and the use of "troublemaking tactics" such as street protests even lends greater legitimacy to complaints.[278] A common complaint among environmental protestors is the lack of consultation in accordance with government policy.[279]

In several of the NIMBY-style protests, a protest occurred when locals learned of a new project late in the process and local officials ignored peaceful petitions. After petitions failed, or if the nature of the project was discovered once construction had begun, people took to the streets in anger. Some protests were followed by a period of negotiation in which the government agreed to the temporary suspension of the contentious project and greater consultation with the local populace.[280] In other cases, the government appeared to give in to public pressure, but only waited for emotions to cool

---

[276] Johnson, "The Health Factor in Anti-Waste Incinerator Campaigns"; Chan, "Villagers angry at losing Jiangmen uranium plant deal"; Zhu, "China Approves $5 Billion Sinopec-Kuwait Oil Project"; "Chemical Plant Boss Held over Sudden Deaths"; Pearce, "As China's Pollution Toll Grows, Protesters and Media Push Back."

[277] Chen, *Social Protest and Contentious Authoritarianism in China*, 14.

[278] Ibid., 15–19.

[279] Johnson, "The Health Factor in Anti-Waste Incinerator Campaigns"; "Beneath the Glacier"; Jane Perlez, "After Qidong Protests, China Cancels Waste Project," *New York Times*, July 28, 2012, http://www.nytimes.com/2012/07/29/world/asia/after-protests-in-qidong-china-plans-for-water-discharge-plant-are-abandoned.html.

[280] Liu Yong, "Hundreds of Villagers in China Riot against Polluting Factory—China Digital Times (CDT)," *China Digital Times (CDT)*, June 20, 2005, http://chinadigitaltimes.net/2005/06/hundreds-of-villagers-in-china-riot-against-polluting-factory/; Candy Zeng, "Green Challenge to China's Mega-Projects," *Asia Times Online Ltd*, March 20, 2008, Online edition, sec. China Business, http://www.atimes.com/atimes/China_Business/JC20Cb01.html; Didi Tang, "China Residents Protest Chemical Factory Expansion," *BostonGlobe*, October 28, 2012, sec. World, https://www.bostonglobe.com/news/world/2012/10/27/china-residents-protest-chemical-factory-expansion/r2YmZn057XctfXShJ95SSI/story.html; Hai Nan, Wong Lik, and Yang Fan, "Police Detain 'At Least 10' in Clashes With Pollution Protesters in China's Guangdong," trans. Luisetta Mudie, *Radio Free Asia*, April 15, 2015, http://www.rfa.org/english/news/china/clashes-04152015102825.html; Sophie Beach, "Incinerator Protests Signal New Environmental Consciousness," *China Digital Times (CDT)*, September 14, 2014, http://chinadigitaltimes.net/2014/09/177177/.

before quietly restarting the project—occasionally with adjustments or fines levied.[281] At other times, local governments relocated the project to a less contentious area[282] or silenced dissent.[283] The protests with the greatest possibility of having a long-term positive impact on the environment, however, were those that also mobilized ancillary, less contentious efforts by local ENGOs. In these examples, the pressure did not cease with the end of street demonstrations. Instead, the protests served to create greater awareness among the local population and pressure was quietly maintained after street protests ended in order to effect lasting change.[284]

During bread riots, both early modern and contemporary, protesters use similar tactics. Locals would focus the anger on outsiders, while appealing to local gentry,[285] but consultation rhetoric is not the only government language used by protestors. Protestors also take advantage of anti-corruption and pro-environment rhetoric to appeal for aid

---

281 Jean-Francois Tremblay, "Chinese Riot Over Pollution," Professional Journal Blog, *Chemical & Engineering News*, (April 18, 2005), http://pubs.acs.org/cen/news/83/i16/8316notw6.html; "NIMBY Protests: A Timeline of NIMBY Protests"; Chan, "Villagers angry at losing Jiangmen uranium plant deal"; Pearce, "As China's Pollution Toll Grows, Protesters and Media Push Back"; "Map: Protests Over Large Projects," *New York Times*, November 6, 2012, http://www.nytimes.com/interactive/2012/11/06/business/Protests-Over-Large-Projects.html?ref=global; Samuel Wade, "Qidong Paper Plant Resumes Production," *China Digital Times (CDT)*, July 31, 2012, http://chinadigitaltimes.net/2012/07/qidong-paper-plant-resumes-production/; Chris Buckley, "In Southern China, Residents Wary of the Government Protest a Plan to Burn Waste," *New York Times*, September 14, 2014, http://www.nytimes.com/2014/09/15/world/asia/plan-to-burn-waste-brings-protests-in-southern-china.html.

282 Chan, "Villagers angry at losing Jiangmen uranium plant deal"; Caixiong, "Refining Giant: Sinopec Links with Kuwait Petroleum"; "NIMBY Protests: A Timeline of NIMBY Protests"; Watts, "Chinese Protesters Confront Police over Incinerator Plans in Guangzhou."

283 French, "Anger in China Rises"; Fei, "Shanghai Police Brutalize Property Owners with Pepper Spray and Tear Gas"; "Hundreds of Chinese Protest against Chemical Plant," *ABC News*, May 4, 2013, Online edition, http://www.abc.net.au/news/2013-05-04/hundreds-protest-china-chemical-plant/4670060; Xiaodong and Guoyao, "Locals Attack Factory in South-East China after Child Lead Poisonings"; "Piecing Together the Maoming Protest," *BBC News*, April 2, 2014, Asia Pacific edition, sec. China Blog, http://www.bbc.com/news/blogs-china-blog-26847987; Buckley, "In Southern China, Residents Wary of the Government Protest a Plan to Burn Waste"; Yang Fan and Lai-see Grace Kei, "Six Held After Pollution Protests in Two Chinese Provinces," trans. Luisetta Mudie, *Radio Free Asia*, September 17, 2014, http://www.rfa.org/english/news/china/protests-09172014162435.html.

284 Johnson, "The Health Factor in Anti-Waste Incinerator Campaigns"; "Environmental Protests in China."; For more information see Appendix: Table 2—Chinese Environmental Protests (2005-2014)

285 Walton and Seddon, *Free Markets & Food Riots*, 32–3.

from the central government against local elites.[286] In such instances, protestors attempt to gain outside notice and plead their case to the center, not necessarily out of strong belief, but a mix of hope that the center will side with the masses and step in to enforce government laws and policies.[287] This exploitation of divisions between local and central elites may be perceived to mitigate the risk of protesting by adopting language supportive of the central regime's stated priorities.[288]

The frequency of street protests and degree of openness or opportunity may also correlate to their distance from Beijing. Officials in Beijing and its surrounding provinces may possibly have fewer public divisions that could be exploited. They may also be more sensitive to protests in this region, giving a threat of protest greater weight than in southern provinces where threats to protests must be carried out in order to be effective. In other collective action, such as early bread riots, there were protests in both England and Ireland. Eventually, however, the riots ceased in Ireland, possibly because "rioters had less 'political' clout in Ireland" and thus riots did not work.[289] In China, there seems to be a "sweet spot" for protests. Closer to the center, directly around Beijing, greater political influence may translate to fewer riots. Yet as you gain distance from Beijing, the number of riots increase heading south, and into the middle provinces, but when you reach the farthest provinces protests again decline.

3. Framing and Tactics: How Are the Chinese Protesting?

The final aspects to social movement theory are framing and tactics, or how are issues communicated to draw people into the street? What is the relationship between single-issue NIMBY street protests and the growing environmental movement? In reference to the majority of protests in China, "there can be no doubt that the actions [are]

---

286 Johnson, "The Health Factor in Anti-Waste Incinerator Campaigns"; Rob Schmitz, "China's Toxic Harvest: A 'Cancer Village' Rises in Protest," *NPR Marketplace*, April 17, 2013, http://www.marketplace.org/topics/world/chinas-toxic-harvest-cancer-village-rises-protest; "Southern Metropolis Daily Coverage of Panyu Garbage Incinerator Protest," *EastSouthWestNorth*, November 23, 2009, http://www.zonaeuropa.com/20091123_1.htm.

287 O'Brien, "Rightful Resistance Revisited," 1057.

288 McAdam and Snow, *Readings on Social Movements*, 27.

289 Thompson, *Customs in Common*, 296.

approved by an overwhelming popular consensus."[290] Just as during English bread riots, there was a deeply felt conviction that the state should regulate grain prices;[291] in China, there is a growing conviction that corporations should be held responsible for their actions—particularly in regards to the pollution of the environment.

Those who protest appear to be angry locals directly affected by the polluters or the proposed new construction. ENGOs and civic organizations seem to be foregoing a presence in street protests.[292] Despite keeping a necessary distance form street protests, recognized ENGOs offer education to the general population on the dangers of pollution and their meetings offer a place for like-minded activists to meet and discuss in a legitimate manner. The environmental protests are unique amongst the thousands of other protest in China because they are showing signs of a nascent social movement, growing and repeating lessons learned from previous protests in other parts of the country. They have also begun to appear in multiple locations. In April 2014, a protest in Maoming against the construction of a new PX plant spawned "sister demonstrations" in two nearby cities.[293] Although as quickly as protestors learn, so too the government. The CCP now teaches major street protests, and government responses as case studies to Party members.[294] Such is the cycle of protest and repression.

C. CONCLUSION

While a cynic might argue that environmental protection cannot succeed so long as the government remains focused on development, citizens are becoming increasingly aware of the dangers of allowing unchecked pollution.[295] The Chinese environmental movement is a professional mixture of lawyers, journalists, full-time activists, and

---

[290] Ibid., 229.

[291] Ibid.

[292] Johnson, "The Health Factor in Anti-Waste Incinerator Campaigns"; Ho and Edmonds, "Perspectives of Time and Change."

[293] "Volatile Atmosphere."

[294] Tang Hao, "Shifang: A Crisis of Local Rule," *Chinadialogue*, July 18, 2012, https://www.chinadialogue.net/article/5049-Shifang-a-crisis-of-local-rule; Samuel Wade, "The Long Shadow of 2012's Shifang Protests," *China Digital Times (CDT)*, November 10, 2014, http://chinadigitaltimes.net/2014/11/long-shadow-2012s-shifang-protests/.

[295] Zhang and Barr, *Green Politics in China*, 5.

volunteers working under formal organization structures.[296] The movement seems almost entirely indigenous and growing in a cautious manner fitting a semi-authoritarian state. The rise of protests is a sign that people are willing to engage in contentious actions to challenge the state on issues that directly affect their health and well-being. As this momentum grows, civil society grows as well. NGOs are finding new ways to pressure the government over issues, which do not challenge the Party's political monopoly. As ENGOs continue to learn how to best to pressure for long-term changes, government rhetoric is also increasingly in the favor of environmental reform.[297] Social movement theory explains the growth of environmental protests as the next step to building a comprehensive environmental movement, but many unsolved questions remain.

---

[296] Tarrow, *Power in Movement*, 24.

[297] Ho and Edmonds, "Perspectives of Time and Change," 338; Economy, "China Wakes Up to Its Environmental Catastrophe."

V. CONCLUSION

Concern over China's future and, its environment in particular, continues to grow. Although the CCP appears to have conceded environmental issues as an area in which people may challenge commercial and governmental actions, the government is still leery of social unrest or large demonstrations of any kind. China's environmental protests are increasingly attracting attention from all levels of the Chinese government as well as from Western media, but China's environmental movement is just beginning to coalesce into sustained collective action. China's environmentalism has matured into an environmental movement focused solely on the environment and not on larger democratization concerns. As the movement continues to grow in size and legitimacy, the CCP will continue to co-opt or repress these street protests, using them to maintain their political monopoly.[298]

These street protests are not only occurring more often, they are being reported both internally and internationally with a greater frequency. As protests continue, the government faces increasing challenges in maintaining stability. Each successful protest encourages the next and protesters have begun holding protests in secondary cities to support the issues. While there is no single cause, a variety of factors based on region, economic status, and other variables affect the size of protests. The decision whether or not to initiate a street protest appears to depend on multiple hierarchical factors as follows, in descending order: location, degree of disposable income, levels of pollution, and finally other economic factors.

Based on this preliminary research a few concrete conclusions can be offered. First, the elimination of unemployment as a variable is supported. Second, it is clear that as citizens become aware of the dangers of unchecked pollution, protests will continue as more people become willing to challenge the state over issues that directly affect their health and those of their families.

---

298 "Beneath the Glacier."

As awareness grows, so will China's nascent environmental movement. A largely indigenous movement, the Chinese environmental movement is a professional mixture of lawyers, journalists, full-time activists, and volunteers who are increasingly networked. This movement, combined with a more active and vibrant civil society will continue to support the state by working within the current political system to effect change. As the momentum grows, ENGOs are finding new ways to pressure the government over environmental issues, without directly challenging the Party's political monopoly. The rest of this chapter will summarize the findings of the previous chapters and attempt to extrapolate cautious predictions for the near future; offer areas of further research to build upon this study; and look at the probable impact of a new security law passed during the summer of 2015 on Chinese civil society and the environmental movement.

A. CHINA, 2015

Since China began its efforts to open its economy, it has focused on development. This singular focus on development relegated cleaning the environment and social welfare to individuals and private organizations. As the government retreated further from the private lives and social responsibility, civil society grew to fill the void; however, it could not do so at a pace equal to the governmental retreat. Although the government has come to acknowledge the need for limited civil society, it remains leery of many non-profits, particularly those that are foreign funded or focused on human rights, due to their potential to shift focus from limited societal issues to full democratization.

While civil society has grown in incremental steps over the last thirty-five years, the level of attention for environmental awareness has grown exponentially over the last decade and a half. Since the 1980s, China has slowly brought its environmental regulations in line with the international community. Unfortunately, China's enforcement capacity of environmental laws is extremely weak and has not developed at the same rate as regulations. Without greater financial support, more people, and increased enforcement, China's environmental regulations will not be enough to prevent the continued degradation of the environment—to the world's peril.

Environmental issues are slowly being recognized as a transnational, global threat, and the widespread degradation in China is increasingly at the forefront of international environmentalist's ire. Through the Internet and international assistance, the increased focus of international environmentalists on China and the growing understanding within China of environmental contamination are reinforcing each other. The more informed the public, the greater the likelihood of protest. Increased dissemination outside official government channels is slowly allowing China's civil society to coalesce and reach past local barriers.

Looking at the trends and data discussed in the previous chapters, we can begin to see some trend lines that, all things remaining equal, may lead to cautious predictions. Chapters III and IV offer an explanation of why protests occur where they do—divergence of political opportunity, education, and emotion—but what does this mean for the future? The data suggests that the reporting of protests is growing; this may also correlate to a growth in protests. In the first six months of 2015, there had already been almost as many protests reported as any previous year—nine compared to the previous high of ten in 2009. For environmentalists this is an encouraging sign, but it does not mean the government is willing to concede. Government officials are still willing to send in police or paramilitary to break up protests that are seen as growing too large or unruly or disruptive. The greatest impact from the protests is not a reduction of repressive responses, but an increased awareness of why people are willing to protesting. If reporting continues to grow, then pressure on the government is likely to eventually reach levels that will lead to significant changes or risk taking new forms, such as challenging government legitimacy.

The growing environmental movement indicates an increased maturity of China's civil society, but does not show signs of linking with other movements or transforming into a force for democratization. The largest influences on the environmental movement fall into two categories, celebrities on social media who post information and follow protests, informing others, but are not physically involved, and protestors or bystanders who film the protests and government responses. In the case of the first category, the celebrities are popular on social media, in part, because they are already a part of China's

culture and use their fame to support the environmental movement. Other influencers are the leaders of the various ENGOs who by in large appear to believe that the best way to affect change in China is by remaining apolitical and therefore able to continue fighting for improvements, but who avoid direct, extra-institutional conflict when possible.

In the near-term, the next five years, the CCP will be able to continue to co-opt civil society through intimidation and repression. Civil society organizers, particularly those within the environmental movement, continue to see the hope of progress and so believe that better results can come from pushing boundaries within the system, not fighting directly against and inviting stronger responses. An example of positive signs is the new Environmental Protection Law, which promises stronger repercussions against polluting companies.[299] Another positive indication of increased governmental support would be a strengthening of the Green Courts in a manner that shows Beijing's willingness to back the judges against state-owned enterprises or other major polluters. Looking out five to ten years, the ability of the state to co-opt environmentalists will largely depend on whether or not new laws live up to expectations.

B. FURTHER RESEARCH

The biggest area for improvement on this research is with a broader dataset. Greater clarity on how widespread protests over the environment truly are would best come from governmental statistics. Government statistics would give a better overall trend and allow for a large-n study and clarity at both national and provincial levels as well as a better analysis and comparison of the provinces not analyzed in this study.

Another way for better data would be to conduct on the ground interviews with protests either during or after a protest. While such a data may be less comprehensive, it might offer different insights into causes of protests and sentiment of protesters. For instance, no data exists for the level of mistrust of official statements concerning environmental impact. There may be a relation between mistrust and incidents of street protest. In many of the articles and some of the literature, mistrust was cited as a factor in

[299] Wang Yan, "Actions Speak Louder," *NewsChina*, July 2015, http://www.newschinamag.com/magazine/actions-speak-louder.

environmental protests, but was left out of this study due to insufficient data or understanding. The best way to correct the lack of understanding would be to conduct interviews during or immediately following protests. While protester interviews would be biased they would also offer a supplementary point of view and insight.

Neither government data nor on-the-ground interviews would provide clarity on government reporting statistics or how the media covers different topics or protests. A study of media coverage, including sentiment analysis of reports from various sources, could provide further insights into how different topics are viewed by the various actors. As well as traditional media, analysis of social media coverage may offer insight into influencers and citizen response to government actions. In order to conduct this type of study, one would need to understand Chinese. It might be possible to conduct a social network analysis of China's environmental movement via Twitter, but to do so would highly bias the sample to those who are capable of and interested in circumventing China's "Great Firewall" Internet barriers. Another option would be to conduct a similar analysis of Sina Weibo based on the types of software available for analysis of Twitter.[300]

Other areas for further research would be the intersection between protests and China's internal migrants. China estimates that there are 260 million internal migrant workers within the country, or about 20 percent of the Chinese population.[301] Of the migrant population, approximately one half are under 35 years old, many of them even growing up within the city and identifying the city, not their village, as home.[302] This same population is also unable to access the benefits of living within a city in which they live and work, often making very little in comparison to their urban counterparts with resident IDs. Due to the high levels of networking, increased connectivity via technology, and informal associations within urban areas the undercurrent of tension within Chinese

[300] Currently, there are several ways to analyze Tweets aggregated from Twitter using commercial, open source software. Tweets are then sorted according to various algorithms based on key words, hashtags, and geo-location, and software used. As far as I am aware, no such software exists for Sina Weibo and therefore would be more than just analysis but also require advanced knowledge of computer coding.

[301] Ma, "China's 20 Percent Problem."

[302] Ibid.

cities is rising.[303] Does this tension add to desire for protest by urban residents? Do migrants join the protests? This would be another promising area to investigate.

C. CIVIL SOCIETY AND ENVIRONMENTAL ACTIVISTS

On March 1, 2015, the Chinese Internet was rocked by a lecture video in the style of a TED talk posted by the *People's Daily Online*. The video was a talk given by activist, journalist Chai Jing and within one week, the video had received 200 million views, was translated via crowdsourcing, and then abruptly pulled from the Chinese Internet. By the end of the month, "Liu Xiangdong, former director of the environmental protection bureau of Shanxi Province who complained about his department's lack of power in Chai Jing's lecture video, was detained for alleged corruption,"[304] and the editor who allowed the initial posting was detained for extortion.[305]

The ability of the state to repress remains intact, but it must learn to co-opt those willing to work with the government or they will become increasingly radicalized. An example, of maintaining government supremacy and broadening repression tools was passed on July 1, 2015. The new national-security law authorized "'all measures necessary' to protect the country from hostile elements." Under the broader provisions of this law, a new draft has been circulated "regulating foreign non-governmental organizations (*sic*) (NGOs) [and] is expected to pass" before the end of 2015.[306] The new law is most likely aimed at foreign NGOs who are seen as a threat to the continued dominance of the CCP—in particular, groups working in the realm of "rule of law" or human rights and receive the majority or all funding from foreign (Western) sources. While the government may be seeking to ensure a better grasp on pervasive foreign influences, it is simultaneously allowing greater freedom for NGOs deemed non-political

---

303 Ibid.

304 Xie Ying, "All Bark, No Bite," *NewsChina*, accessed August 28, 2015, http://www.newschinamag.com/magazine/all-bark-no-bite.

305 Samuel Wade, "People's Daily Online Editor, Vice President Investigated," *China Digital Times (CDT)*, August 27, 2015, http://chinadigitaltimes.net/2015/08/peoples-daily-online-editor-vice-president-investigated/.

306 "Uncivil Society," *The Economist*, August 22, 2015, http://www.economist.com/news/china/21661819-new-draft-law-spooks-foreign-not-profit-groups-working-china-uncivil-society.

who are focused on issues seen to enhance social stability. The new law also requires foreign NGOs to register with the Ministry of Public Security rather than the Ministry of Civil Affairs. This is in parallel with the softening of legislation in the domestic sector. Some social work organizations have been able to legally set up without requiring a sponsor and the amount of charitably giving domestically is increasing and being supported by the Party.[307]

China's environmentalism may have finally emerged as an environmental movement capable of broad, sustained contentious actions, but the government does not appear willing to continue tolerating threats to its survival. As civil society strengthens, so does the government's fears of instability and loss of control. If China's environmental movement does not begin to make swifter progress through embedded activities, China may see an increase of contentious actions and growing protests. Once street protests begin, they become much harder to control either by protest leaders, or through repression by force. Protests often take on a life of their own, evolving, radicalizing, and institutionalizing as they continue.[308] The Chinese government understands this, and should move to work with ENGOs to force recalcitrant industries to follow the law or pay stiff, painful penalties.

[307] Ibid.

[308] Tarrow, *Power in Movement*, 207–8.

THIS PAGE INTENTIONALLY LEFT BLANK

APPENDIX. FIGURE/TABLE SOURCE DATA

A. EXPLANATION OF DATA CODING

Data. The data set was collated using major news outlets, bilingual blogs, and references to protests found in scholarly works. Internet sourcing used "environment," "protest(s)," "China" and similar terms and phrases in search engines. In many cases, a reference to a protest was found in one location or article, and then the year, possible location, and major issue would be entered into the search engine to find more details about the incident.

Timeline. 2005–2014 was chosen, due to limitations of available data pre-2005. There was a single data point for 2004, but it was eventually left out due to lack of other data points for 2004. A 10-year data set was chosen for ease of analysis with 2005 chosen as the first year and closing on December 2014. A separate data set was started for 2015 (January—June). Nothing added after June as majority of writing was done in July and August. The format of "month-year" was chosen as too many articles or incidents had undefined or inexact start/ stop dates given. In many cases, a protest would be reported only once or another might mention how protestors had been out for several days. Other articles would refer to the month in which a protest occurred, but no further detail, or that a 'stroll' had taken place the previous week and the results were the topic of the article. When specific start dates were not listed, the default assumption was that the date published of the article was within the same month of the mentioned protest.

City. Location was also a difficult detail to decipher below the provincial level. In order to consolidate the locations of protests into Figure 9, county, village, township, neighborhood, or city names were consolidated to form a best guess as to the location of the protest. Part of the issue with detailed location was the shifting reporting standards in which village/township/ county/ city locations were not used on an obvious standard, so while two articles were very clearly discussing the same protest, one would refer to a village, and another would reference the township or county, but not the smaller town/ village. The rest of the analysis was conducted at the provincial level because the

province was much easier to decipher than exact location. In addition, for the sake of analysis, most Chinese statistics are kept on the provincial levels and any micro-level analysis would have yielded fewer results.

Numbers. Numbers were usually mentioned, but articles tended to be oblique (hundreds/ thousands), not specifics. In this case, the size was rounded to nearest tens place: thousands = 1,000, hundreds = 100. Oftentimes, articles did not always agree on the numbers in which case conservative averages were used to best estimate approximate size

Issue. The way an issue was decided was based on declared complaint from protestors. Often, these protests were against a factory or chemical plant. If protestors mentioned a specific complain, that was used, if not, it was based on types of pollution most commonly associated with the specified industry. As environmental research is oft broken into air/water/soil, so too "overarching concerns" were air/water/soil pollutions. In the event that more than one type of pollution was mentioned, it was counted as a protest for both. Radiation as a concern was added later when it became clear that it was the only outlier, but did not fit under air pollution, the next closer.

Results. Results were included in the below table, but only cursory discussed and generalized in Chapter IV. The return for attempting to codify results in a qualitative matter was later determined to be outside the scope of this thesis. Another reason it was dismissed was due to large time gaps between the cessation of protest and government action or inability to discover from within available news sources the actual long-term outcome. In many cases, the protests were either single occurrence with no discernable media follow-up, or in others, they were dispersed and follow-up may not have been possible. In others, temporary shutdowns were achieved but without access to Chinese sources on the ground, there was no way to verify the factory remained shut or if it had restarted.

B. DATA SETS

Table 2. Chinese Environmental Protests (2005–2014)

Date	City	Province	Numbers	Issue	Results
Apr-05	Huaxi, Dongyang City	Zhejiang[309]	20,000+	Zhuxi Industrial Park: air/water/soil	5 villages jailed; Jan 2006 last factory (13 total) shutdown
Apr-05	Guideng	Hunan[310]	600	Vanadium refining sediment: air	Frustrated villagers raid/ destroyed factories
May-05	Xiaochaoshui	Hunan[311]	1,000	Qingshui river fouling from molybdenum mining operations: water	About 200 mining sites destroyed
Jul-05	Jianxia	Zhejiang[312]	600	Battery factory: soil	1,000 workers taken hostage; released after a managers promise investigation into pollution
Jul-05	Xinchang	Zhejiang[313]	15,000	Jingxing Pharmaceutical Chemical factory explosion: soil pollution	Suppressed by force (3,000 paramilitary police bussed in)
Aug-05	Meishan	Zhejiang[314]	<100	Tian Neng Battery Factory—lead poisoning: soil	Factory burned

309 Deng and O'Brien, "Relational Repression in China"; "Environmental Protests in China"; Tremblay, "Chinese Riot Over Pollution."

310 "Environmental Protests in China"; Cody, "China's Rising Tide of Protest Sweeping Up Party Officials."

311 "Environmental Protests in China"; Cody, "China's Rising Tide of Protest Sweeping Up Party Officials."

312 "Environmental Protests in China"; "Residents Take over a Polluted Factory"; Yong, "Hundreds of Villagers in China Riot against Polluting Factory—China Digital Times (CDT)."

313 "Environmental Protests in China"; French, "Anger in China Rises."

314 "Toxic Waste Sparks."

Date	City	Province	Numbers	Issue	Results
Apr-06	Quanzhou	Fujian[315]	200	Sewage Plant: air & water pollution	
Jun-07	Xiamen	Fujian[316]	10,000	Started as SMS/ Internet campaign against Tenglong Aromatic PX plant[317]	"100 members of prominent…National Committee of the Chinese People's Political Consultative Conference also called for the plant's relocation"[318]; Construction halted/ factory relocated
Nov-07	Minhang District	Shanghai[319]	1,000+	High power line EM radiation	Para-military police deployed; construction continued
Jan-08		Shanghai[320]	100s	Maglav train/ fear of radiation	
Mar-08	Gulei Peninsula	Fujian[321]	10,000	PX plant initially planned for Xiamen	Dozens injured/ 20 arrested; relocated outside Zhangzhou, 100 km SW Xiamen

315 "Villagers Attack Factories over Pollution in Eastern China | Worldwatch Institute," *Worldwatch Institute*, accessed July 10, 2015, http://www.worldwatch.org/villagers-attack-factories-over-pollution-eastern-china.

316 Chan, "Villagers angry at losing Jiangmen uranium plant deal"; "Environmental Protests in China."

317 "People vs. Chemical Plant."

318 Andrew Jacobs, "Chinese Chemical Plant Site Moves After Outcry," *New York Times*, January 15, 2009, http://www.nytimes.com/2009/01/15/world/asia/15fujian.html.

319 Fei, "Shanghai Police Brutalize Property Owners with Pepper Spray and Tear Gas."

320 Kurtenbach, "Shanghai Residents Protest Maglev Train."

321 "Environmental Protests in China."

Date	City	Province	Numbers	Issue	Results
May-08	Chengdu	Sichuan[322]	400–500	Ethylene plant and oil refinery: air	
Aug-08	Changying	Beijing[323]	Hundreds	Refuse dump: air pollution	Measures to reduce smell implemented
Jan-09	Zhangzhou	Fujian[324]	Small, sporadic	Tenglong PX plant: air	Sporadic, no momentum; 6 percent construction budget for "environmental protection"; PR push by gov't
Jul-09	Nansha	Guangdong[325]	1,000+	Oil refinery and petrochemical plant by Sinopec and Kuwait Petroleum (initial deal struck 2007): air	14 local officials called for 'rethink'[326]; relocated to Zhanjiang (construction ongoing, 2014)[327]

322 Ibid.; Wong, "In China City, Protesters See Pollution Risk of New Plant"; Pauline Blount, "Chinese Middle-Class and Farmers Protest Petrochemical Plant in Chengdu," *Global Nonviolent Action Database*, April 12, 2011, http://nvdatabase.swarthmore.edu/content/chinese-middle-class-and-farmers-protest-petrochemical-plant-chengdu-chengdu-stroll-2008.

323 "NIMBY Protests: A Timeline of NIMBY Protests"; Jonathan Watts, "Chinese Protesters Return to Streets after Olympics," *Guardian*, August 30, 2008, http://www.theguardian.com/world/2008/aug/31/beijing.pollution.protest.

324 Jacobs, "Chinese Chemical Plant Site Moves After Outcry"; Wu Jin, "Suspended Xiamen PX Project May Restart in Zhangzhou," *China.org.cn*, January 13, 2009, http://www.china.org.cn/environment/news/2009-01/13/content_17101597.htm; Peng Liguo and Gong Junnan, "Will the Chinese Public Be Persuaded That PX Factories Are Safe?," *Chinadialogue*, December 8, 2013, https://www.chinadialogue.net/article/show/single/en/6280-Will-the-Chinese-public-be-persuaded-that-PX-factories-are-safe-.

325 "Environmental Protests in China"; Branigan, "Chinese Citizens Set to Launch First Ever Environmental Lawsuit"; Zhu, "China Approves $5 Billion Sinopec-Kuwait Oil Project."

326 Zeng, "Green Challenge to China's Mega-Projects."

327 Caixiong, "Refining Giant: Sinopec Links with Kuwait Petroleum."

Date	City	Province	Numbers	Issue	Results
Aug-09	Shuangqiao	Hunan[328]	1,000	Death of 2 villagers; Xianghe chemical factory- heavy metal pollution: water	2 Environmental officials suspended; Plant boss arrested; Plant production halted, pending further investigation
Aug-09	Quanzhou	Fujian[329]	200	Faulty sewage infrastructure: water	Died out
Aug-09	Shenzhen	Guangdong[330]	Small sit in	Longgang Waste Incineration	
Aug-09	Chongqing	Shaanxi[331]	Hundreds?	Dongling Lead and Zinc Smelting company: Lead poisoning/ soil pollution	Factory shut-down; 615/731 Children tested positive lead poisoning; planned to reopen in 2010; 11 public health officials disciplined
Aug-09	Wugang	Hunan[332]	1,000	Wugan Magnesium smelting plant: soil	2 officials arrested; "no official approval"/ plant shutdown
Sep-09	Fengwei	Fujian[333]	10,000+	Pollution from refinery: air	"Many deaths from cancer of the stomach and esophagus in recent years"; 2 thousand police, tear gas

328 "Environmental Protests in China"; "Chemical Plant Boss Held over Sudden Deaths."

329 "Environmental Protests in China."

330 Keith Bradsher, "China's Incinerators Loom as a Global Hazard," *New York Times*, August 12, 2009, sec. Business / Energy & Environment, http://www.nytimes.com/2009/08/12/business/energy-environment/12incinerate.html.

331 Pearce, "As China's Pollution Toll Grows, Protesters and Media Push Back."

332 "Environmental Protests in China"; Pearce, "As China's Pollution Toll Grows, Protesters and Media Push Back."

333 "Urban Warfare in Fujian."

Date	City	Province	Numbers	Issue	Results
Sep 09	Jiaoyang	Fujian[334]	<100	Soil: Lead poisoning	Huaqing battery factory suspended production; High levels of lead found in children's blood
Nov-09	Panyu, Guangzhou	Guangdong[335]	1,000+	Waste Incinerator: Air	Closed/ relocated; recycling program
Jul-10	Jingxi	Guangxi[336]	1,000	Aluminum plant: soil	
Apr-11	Wuxi	Jiangsu[337]	1,000+	Waste Incineration: air	
Aug-11	Dalien	Liaoning[338]	12,000+	Fujia Chemical Factory Sea Wall breached by Typhoon; PX	Government promised to shutdown/ relocate factory…In 2012, still expanding

334 "Protest against Suspected Lead Pollution Continues in E China English."

335 Sophie Beach, "Residents Protest Garbage Incinerator in Guangdong," *China Digital Times (CDT)*, November 22, 2009, http://chinadigitaltimes.net/2009/11/residents-protest-garbage-incinerator-in-guangdong/; Watts, "Chinese Protesters Confront Police over Incinerator Plans in Guangzhou"; James Pomfret, "Hundreds in South China Oppose Waste Incinerator," *Reuters*, November 23, 2009, http://www.reuters.com/article/2009/11/23/us-china-environment-incinerator-idUSTRE5AM0JS20091123; Pauline Blount, "Guangzhou Residents Protest Incinerator, 2009," *Global Nonviolent Action Database*, November 26, 2011, http://nvdatabase.swarthmore.edu/content/guangzhou-residents-protest-incinerator-2009; "NIMBY Protests: A Timeline of NIMBY Protests"; "Panyu Residents Victorious in Blocking Planned Incinerator, Expected to Meet 30% Recycling Target in Return," *New Energy and Environment Digest*, December 12, 2009, http://needigest.com/2009/12/12/panyu-residents-victorious-in-blocking-planned-incinerator-expected-to-meet-30-recycling-target-in-return/.

336 "NIMBY Protests: A Timeline of NIMBY Protests."

337 "Thousands Protest Waste-Incineration Power Plant in Eastern China," *New Tang Dynasty Television*, April 14, 2011, http://www.ntd.tv/en/news/china/20110414/63020-thousands-protest-wasteincineration-power-plant-in-eastern-china.html.

338 "Environmental Protests in China"; Lafraniere and Wines, "Plant Protest Shows China's Officials Under Pressure"; "Map: Protests Over Large Projects"; Patti Waldmeir, "China's Pollution Time Bomb Highlighted," *Financial Times*, October 29, 2012, http://www.ft.com/cms/s/0/b02feebe-21d6-11e2-b5d2-00144feabdc0.html#axzz3Y9M3MUmb; Jonathan Watts, "Controversial Chinese Chemical Plant Believed to Have Resumed Production," *Guardian*, January 13, 2012, http://www.theguardian.com/environment/2012/jan/13/chinese-chemical-plant.

Date	City	Province	Numbers	Issue	Results
Sep-11	Haining	Zhejiang[339]	500	Zhejiang Jinko Solar Co Ltd chemicals used in solar panel manufacturing: water pollution (dead fish)	Ordered to halt product lines emitting toxic gases; approx. 20 people arrested; resumed in October after "corrective action" taken; paid $74,000 fine
Dec-11	Haimen	Guangdong[340]	30,000	Coal-fired power plant construction	Construction cancelled
Apr-12	Tianjin	Tianjin[341]	1,000s	Sino-Saudi PX plant (SINO-SABIC)	
Jul-12	Qidong	Jiangsu[342]	1,000	Wastewater discharge: water[343]	Pipeline expansion cancelled and factory remains open[344]

339 "Environmental Protests in China"; Elaine Kurtenbach, "Over 500 Villagers Protest China Factory Pollution," *U-T San Diego*, September 18, 2011, http://www.utsandiego.com/news/2011/sep/18/over-500-villagers-protest-china-factory-pollution/; Pauline Blount, "Chinese Farmers Protest Solar Panel Plant Pollution, Haining, 2011 | Global Nonviolent Action Database," *Global Nonviolent Action Database*, June 10, 2011, http://nvdatabase.swarthmore.edu/content/chinese-farmers-protest-solar-panel-plant-pollution-haining-2011; "Recent High-Profile Mass Protests in China," *BBC News*, July 3, 2012, http://www.bbc.com/news/world-asia-china-18684903.

340 "Protests Flare in Southern Chinese Town of Haimen"; Oiwan Lam, "China: Guangdong Uprising, Now in Haimen," *Global Voices*, December 20, 2011, http://globalvoicesonline.org/2011/12/20/china-guangdong-uprising-now-in-haimen/; Gillian Wong, "China Major Protest Demands Halt to Planned Coal-Fired Power Plant," *World Post*, December 20, 2011, http://www.huffingtonpost.com/2011/12/20/china-major-protest_n_1160033.html.

341 "NIMBY Protests: A Timeline of NIMBY Protests."

342 Samuel Wade, "Pipeline Project Cancelled After Protests," *China Digital Times (CDT)*, July 28, 2012, http://chinadigitaltimes.net/2012/07/pipeline-project-cancelled-after-protests/; Perlez, "After Qidong Protests, China Cancels Waste Project."

343 Didi Tang, "China City Quashes Protest against Petro Plant," *Yahoo News*, May 5, 2013, http://news.yahoo.com/china-city-quashes-protest-against-petro-plant-102654099.html.

344 Linlin, "Japanese Paper Factory Center of Protest"; Wade, "Qidong Paper Plant Resumes Production."

Date	City	Province	Numbers	Issue	Results
Oct-12	Yinggehai	Hainan[345]	1,000+	Coal-fired power plant: air	50 arrested; 100 injured; town placed under house arrest[346]
Jun-12	Songjiang	Shanghai[347]	Hundreds	Waste Incineration construction: air	
Jul-12	Shifang	Sichuan[348]	10,000	Copper molybdenum processing plant	Construction paused after violent, bloody protests; 13 injured;[349] case study for government on "what went wrong"[350]
Oct-12	Ningbo	Zhejiang[351]	4,000–5,000	Zhenhai district PX plant; air pollution; gov't promises of subsidy	Halted planned construction after violent weekend clash with police
Nov-12	Wenzhou	Zhejiang[352]	1,000+	High-voltage power lines	

345 "Environmental Protests in China."

346 Xin Yu and Fung Yat-yiu, "Clashes Trigger Lockdown," trans. Luisetta Mudie, *Radio Free Asia*, October 22, 2012, http://www.rfa.org/english/news/china/hainan-10222012105257.html.

347 Wade, "Protests Win Written Pledge."

348 Anne Henochowicz, "Shifang: A Study in Contrasts," *China Digital Times (CDT)*, July 6, 2012, http://chinadigitaltimes.net/2012/07/shifang-a-study-contrasts/; Branigan, "Anti-Pollution Protesters Halt Construction of Copper Plant in China"; Hao, "Shifang."

349 Keith Bradsher, "Chinese City Suspends Factory Construction Following Protests," *The New York Times*, July 3, 2012, http://www.nytimes.com/2012/07/04/world/asia/chinese-city-suspends-factory-construction-following-protests.html; Yan Dingfei, "Shifang Deadlock Is a 'National Problem' for China," *Chinadialogue*, November 10, 2014, https://www.chinadialogue.net/article/show/single/en/7470-Shifang-deadlock-is-a-national-problem-for-China.

350 Wade, "The Long Shadow of 2012's Shifang Protests."

351 Samuel Wade, "PX Protests, Hollow Victories and Forced Demolitions," *China Digital Times (CDT)*, November 3, 2012, http://chinadigitaltimes.net/2012/11/px-protests-hollow-victories-and-forced-demolitions/; Waldmeir, "China's Pollution Time Bomb Highlighted"; Tang, "China Residents Protest Chemical Factory"; Waldmeir, Hook, and Anderlini, "Ningbo Protest, Response Both Typical."

352 Tao, "Villagers Clash With Police Over Proposed Power Plant, Flip Over Vehicles [VIDEO]."

Date	City	Province	Numbers	Issue	Results
May-13	Chengdu	Sichuan[353]	100s	PX	Pre-emptively squashed by officials
May-13	Kunming	Yunan[354]	200–2000	PX	
May-13	Songjiang	Shanghai[355]	100s	Lithium Battery factory: soil	Construction cancelled
Jul-13	Jiangmen	Guangdong[356]	<1,000	Uranium processing plant: soil	Written pledge to scrap Villagers angry over loss of compensation after deal falls through[357]
Jul-13	Huadu	Guangdong[358]	100+	Waste Incinerator	Dispersed peacefully
Aug-13	Gangkou	Jiangxi[359]	100+	Lead poisoning from lead recycling plant: soil	Small, violent riot; protestors eventually dispersed
Apr-14	Maoming	Guangdong[360]	1,000+	PX	18 detained

353 "Hundreds of Chinese Protest against Chemical Plant."

354 Sophie Beach, "Protesters in Kunming and Chengdu Fight Pollution," *China Digital Times (CDT)*, May 4, 2013, http://chinadigitaltimes.net/2013/05/protesters-in-kunming-and-chengdu-fight-pollution/; Chan, "Villagers angry at losing Jiangmen uranium plant deal."

355 Chan, "Villagers angry at losing Jiangmen uranium plant deal."

356 Josh Chin, "China Scraps Uranium Processing Plan After Protest," *Wall Street Journal*, July 13, 2013, sec. World, http://www.wsj.com/news/articles/SB10001424127887324879504578602952150539208?mg=reno64-wsj&url=http%3A%2F%2Fonline.wsj.com%2Farticle%2FSB10001424127887324879504578602952150539208.html; Wade, "Protests Win Written Pledge"; Andrew Jacobs, "Rare Protest in China Against Uranium Plant Draws Hundreds," *New York Times*, July 12, 2013, http://www.nytimes.com/2013/07/13/world/asia/rare-china-protest-against-uranium-plant-draws-hundreds.html.

357 Chan, "Villagers angry at losing Jiangmen uranium plant deal."

358 Yang Fan, "Crowd Protests Planned Incinerator in China's Guangdong Province," trans. Luisetta Mudie, *Radio Free Asia*, August 29, 2013, http://www.rfa.org/english/news/china/crowd-08292013112642.html.

359 Xiaodong and Guoyao, "Locals Attack Factory in South-East China after Child Lead Poisonings."

360 "China Waste Plant Protest in Hangzhou 'Injures Dozens.'"

Date	City	Province	Numbers	Issue	Results
Apr-14	Guangzhou	Guangdong[361]	100s	PX/ Maoming support	
Sep-14	Bolou County	Guangdong[362]	3,000–4,000	Waste Incineration	Police hold 21[363]; plan to continue construction
May-14	Hangzhou	Zhejiang[364]	Hundreds?	Waste Incinerator, construction started 2012	Suspended construction pending 'public approval'; dozens injured; 60+ detained
Sep-14	Chongkuang	Zhejiang[365]	30–40	Planned chemical plant: soil	Protestors removed
Sep-14	Puyang, Dujiangyan	Sichuan[366]	100+	Waste water treatment plant run-off (want relocation of plant)	Police brutality; Effluent from the plant is now in line with national limits,"

Original dataset compiled from listed footnotes.

361 Sevastopulo, "China PX Plant Protests Spread to Provincial Capital Guangzhou."

362 Beach, "Incinerator Protests Signal New Environmental Consciousness"; Buckley, "In Southern China, Residents Wary of the Government Protest a Plan to Burn Waste."

363 Wen Yuqing, Xin Lin, and Yang Fan, "Police Hold 21 After Waste Plant Protest in China's Guangdong," trans. Luisetta Mudie, *Radio Free Asia*, September 15, 2014, http://www.rfa.org/english/news/china/waste-09152014142610.html.

364 "China Waste Plant Protest in Hangzhou 'Injures Dozens'"; Nan, Lik, and Fan, "Police Detain 'At Least 10' in Clashes With Pollution Protesters in China's Guangdong"; Beach, "Incinerator Protests Signal New Environmental Consciousness"; Fan and Vandenbrink, "Dozens Held Over Violent Waste Incinerator Protest."

365 Fan and Lai-see, "Six Held After Pollution Protests."

366 Ibid.

Figure 14. Map of Industries

This map shows part of the national focus on monitoring business location, 2014.
Source: http://www.ipe.org.cn/pollution/sources.aspx

Table 3. Protests Data Points (2015)

Date	City	Province	Numbers	Issue	Results
Jan-15	Wuhan	Hubei			
Apr-15	Luoding	Guangdong[367]	1,000s	Waste Incinerator—Air	Local gov't revoke permit
Apr-15	Daying Village	Guangdong[368]		Mingfeng factory/ Iron foundry: air/ water	Minority area/ 10 detained
Apr-15	Heyuan	Guangdong[369]	10,000	Coal-fired power plant—Air	
2015	Zhangzhou	Fujian[370]		Explosion at Gulei PX plant (2nd in 2 yrs.)—Air	15 injured
Apr-15	Neijing City	Sichuan[371]	1,000s	Foul smelling air/ toxic gas from coking plant	Temporary shut-down for investigation
Apr-15	Daqintala	Inner Mongolia[372]	1,000	Naimen Chemical Refinery Zone: Water/ Air pollution	2,000 riot police deployed; 170 injured

367 Liu Xin, "Luoding Local Government Revokes Waste Incineration Project Permit," *Global Times*, April 9, 2015, sec. Society, http://globaltimes.cn/content/915930.shtml; "China Incinerator Plan Cancelled after Protests," *BBC News*, April 9, 2015, sec. Asia, http://www.bbc.com/news/world-asia-china-32229589.

368 Nan, Lik, and Fan, "Police Detain 'At Least 10' in Clashes With Pollution Protesters in China's Guangdong."

369 John McGarrity, "Thousands Join Demo against Guangdong Coal-Fired Power Plant," *Chinadialogue*, April 13, 2015, https://www.chinadialogue.net/blog/7843--Thousands-join-demo-against-Guangdong-coal-fired-power-plant-/en; Mimi Lau, "10,000 Protest in Chinese City over Planned Coal-Fired Power Plant," *South China Morning Post*, accessed April 24, 2015, http://www.scmp.com/news/china/article/1765010/10000-protest-chinese-city-over-planned-coal-fired-power-plant.

370 Qin, "Govt Assurances on PX."

371 Zhang Chun, "Residents of SW China City Protest against Foul Air," *Chinadialogue*, April 15, 2015, https://www.chinadialogue.net/blog/7844-Residents-of-SW-China-city-protest-against-foul-air/en; Lin Jing and Yang Fan, "Thousands Protest, Riot in China's Sichuan After Coking Plant Leak," trans. Luisetta Mudie, *Radio Free Asia*, April 14, 2015, http://www.rfa.org/english/news/china/leak-04142015103014.html.

372 Qiao Long, Luo Bote, and Ren Ji, "Dozens Held After Pollution Protests in China's Inner Mongolia," trans. Luisetta Mudie, *Radio Free Asia*, April 6, 2015, http://www.rfa.org/english/news/china/mongolia-protest-04062015103918.html.

Date	City	Province	Numbers	Issue	Results
May-15	Gegu	Tianjin[373]	1,000+	Rongcheng Iron and Steel Factory: air	
Jun-15	Jinshan	Shanghai[374]	10,000	PX; gov't mistrust—Air	Heavy police presence/ protestors moved from outside gov't offices[375]; lack of social media commentary[376]
Jul-15	Langfang	Hebei[377]	2,000	Waste Incinerator (told power plant, not what type)—Air	

Original dataset compiled from listed footnotes.

[373] Fan and Yuqing, "Thousands Protest High Cancer Rates Linked to Pollution in China's Tianjin."

[374] Wei Ling and Wen Yuqing, "No Sign of Early End to Shanghai Protest Over Planned PX Plant," trans. Luisetta Mudie, *Radio Free Asia*, June 26, 2015, http://www.rfa.org/english/news/china/plant-06262015133144.html.

[375] Paul Traynor, "Police in Shanghai Remove at Least 3 Busloads of Protesters Who Oppose Rumored Chemical Plant," *AP*, June 27, 2015, Online edition, http://www.usnews.com/news/business/articles/2015/06/27/chinese-city-of-shanghai-stymies-protest-over-chemical-plant.

[376] Angus Grigg, "What Happened to China's Powerful Bloggers?," *Australian Financial Review*, accessed July 14, 2015, http://www.afr.com/technology/social-media/how-china-stopped-its-bloggers-20150703-gi34za.

[377] Lin Jing, "Dozens Injured, 10 Detained in Clashes Over Waste Plant in China's Hebei," trans. Luisetta Mudie, *Radio Free Asia*, July 2, 2015, http://www.rfa.org/english/news/china/dozens-injured-10-detained-in-clashes-over-waste-plant-in-hebei-07022015104948.html.

Table 4. Population and Economic Statistics

(10,000 persons) (100 million Yuan)

Region	Population 2005	2006	2007	2008	2009	2010	2011	2012	2013	Median	Unemployed Persons 2005	2009	2010	2011	2012	2013	Median	Unemployment Rate (%) 2005	2009	2010	2011	2012	2013	Avrg	Gross Regional Product 2013	Avrg Urban Wage (Yuan) 2013	Secondary Industry* (aggregate) 2013	Industry 2013	Percentage Industry/GRP 2013
National Total	**130756**	**131448**	**132129**	**132802**	**133450**	**134091**	**134735**	**135404**	**136072**																	32707			
Guangdong	9194	9442	9660	9893	10130	10441	10505	10594	10644	10130	34.5	39.5	39.3	38.8	39.6	38	39.05	2.6	2.6	2.5	2.5	2.5	2.4	2.52	62163.97	36943	29427.49	27426.26	44.12
Zhejiang	4991	5072	5155	5212	5276	5447	5463	5477	5498	5276	29	30.7	31.1	31.7	33.4	33.4	31.4	3.7	3.3	3.2	3.1	3	3	3.22	37568.49	35302	18446.65	16368.43	43.57
Fujian	3557	3585	3612	3639	3666	3693	3720	3748	3774	3666	14.9	15.2	14.5	14.6	14.5	14.7	14.65	4	3.9	3.8	3.7	3.6	3.6	3.77	21759.64	36657	11315.3	9455.32	43.45
Sichuan	8212	8169	8127	8138	8185	8045	8050	8076	8107	8127	34.3	36.3	34.6	36.9	40.7	42.9	36.6	4.6	4.3	4.1	4.2	4	4.1	4.22	26260.77	29830	13579.03	11578.55	44.09
Hunan	6326	6342	6355	6380	6406	6570	6596	6639	6691	6406	41.9	47.8	43.2	43.1	44.1	45.6	43.65	4.3	4.1	4.2	4.2	4.2	4.2	4.2	24501.67	27637	11517.35	10001	40.82
Shanghai	1890	1964	2064	2141	2210	2303	2347	2380	2415	2210	27.5	27.9	27.6	27	26.7	25.3	27.25		4.3	4.4	3.5	3.1	4	3.22	21602.12	32828	8027.77	7236.69	33.50
Jiangsu	7588	7656	7723	7762	7810	7869	7899	7920	7939	7810	41.6	40.7	40.6	41.4	40.5	37.6	40.65	3.6	3.2	3.2	3.2	3.1	3	3.22	59161.75	36308	29094.03	25612.24	43.29
Yunnan	4450	4483	4514	4543	4571	4602	4631	4659	4687	4571	13	15.4	15.7	16	17.4	18.1	15.85	4.2	4.3	4.2	4.1	4	4	4.13	11720.91	26738	4927.82	3767.58	32.14
Liaoning	4221	4271	4298	4315	4341	4375	4383	4389	4390	4341	60.4	41.6	38.9	39.4	38.1	39.6	39.5	5.6	3.9	3.6	3.7	3.6	3.4	3.97	27077.65	30233	14269.46	12510.27	46.20
Jiangxi	4311	4339	4368	4400	4432	4462	4488	4504	4522	4432	22.8	27.3	26.3	24.6	25.7	27.4	26	3.5	3.4	3.3	3	3	3.2	3.23	14338.5	27819	7671.38	6434.41	44.88
Hainan	828	836	845	854	864	869	877	887	895	864	5.1	5.3	4.8	2.9	3.6	3.9	4.35	3.6	3.5	3	1.7	2	2.2	2.67	3146.46	30002	871.29	551.11	17.52
Guangxi	4660	4719	4768	4816	4856	4610	4645	4682	4719	4719	18.5	19.1	19.1	18.8	18.9	18	18.85	4.2	3.7	3.7	3.5	3.4	3.3	3.63	14378	28508	6863.04	5749.65	39.99
Shaanxi	3690	3699	3708	3718	3727	3735	3743	3753	3764	3727	21.5	21.5	21.4	20.9	19.5	21.1	21.25	4.2	3.9	3.9	3.6	3.2	3.3	3.68	16045.21	26454	8911.64	7507.34	46.79
Beijing	1538	1601	1676	1771	1860	1962	2019	2069	2115	1860	10.6	8.2	7.7	8.1	8.1	7.5	8.1	2.1	1.4	1.4	1.4	1.3	1.2	1.47	19500.56	48027	4352.3	3536.89	18.14
Tianjin	1043	1075	1115	1176	1228	1299	1355	1413	1472	1228	11.7	15	16.1	20.1	20.4	21.7	18.1	3.7	3.6	3.6	3.6	3.6	3.6	3.62	14370.16	41975	7276.68	6678.6	46.48
Hebei	6851	6898	6943	6989	7034	7194	7241	7288	7333	7034	27.8	34.5	35.1	36	36.8	37.2	35.55	3.9	3.9	3.9	3.8	3.7	3.7	3.82	28301.41	28135	14762.1	13194.76	46.62
Hubei	5710	5693	5699	5711	5720	5728	5758	5779	5799	5720	52.6	55.3	55.7	55.1	42.3	40.2	53.85	4.3	4.2	4.2	4.1	3.8	3.5	4.02	24668.49	25898	12171.56	10531.37	42.69
Inner Mongolia	2403	2415	2429	2444	2458	2472	2482	2490	2498	2458	17.7	20.1	20.8	21.8	23.1	23.8	21.3	4.3	4	3.9	3.8	3.7	3.7	3.9	16832.38	33245	9084.19	7944.4	47.20
Shanxi	3355	3375	3393	3411	3427	3574	3593	3611	3630	3427	14.3	21.6	20.4	21.1	21	21.1	21.05	3	3.9	3.6	3.5	3.3	3.1	3.4	12602.24	27580	6792.68	6032.99	47.87
Heilongjiang	3820	3823	3824	3825	3826	3833	3834	3834	3835	3826	31.3	31.4	36.2	35	41.3	41.4	35.6	4.4	4.3	4.3	4.1	4.2	4.4	4.28	14382.93	24750	5918.22	5090.34	35.39
Guizhou	3730	3690	3632	3596	3537	3479	3469	3484	3502	3537	12.1	12.3	12.2	12.5	12.6	13.7	12.4	4.2	3.8	3.6	3.6	3.3	3.3	3.63	8006.79	29370	3243.7	2686.52	33.55
Anhui	6120	6110	6118	6135	6131	5957	5968	5988	6030	6110	27.8	30.1	26.9	33.1	31.3	32.4	30.7	4.4	3.9	3.7	3.7	3.7	3.4	3.8	19038.87	30872	10403.96	8928.02	46.89
Jilin	2716	2723	2730	2734	2740	2747	2749	2750	2751	2740	27.6	23.4	22.7	22.2	22.3	22.6	22.65	4.2	4	3.8	3.7	3.7	3.7	3.85	12981.46	24244	6858.23	6033.35	46.48
Chongqing	2798	2808	2816	2839	2859	2885	2919	2945	2970	2859	16.9	13.4	13	13	12.4	12.1	13	4.1	4	3.9	3.5	3.3	3.4	3.7	12656.69	35666	6397.92	5249.65	41.48
Shandong	9248	9309	9367	9417	9470	9588	9637	9685	9733	9470	42.9	45.1	44.5	45.1	43.4	42.2	43.95	3.3	3.4	3.4	3.4	3.3	3.2	3.33	54684.33	34317	27422.47	24222.16	44.29
Henan	9380	9392	9360	9429	9487	9405	9388	9406	9413	9405	33	38.5	38.2	38.4	38.3	40.2	38.35	3.5	3.5	3.4	3.4	3.1	3.1	3.33	32155.86	23936	17806.39	15960.6	49.64
Gansu	2545	2547	2548	2551	2555	2560	2564	2578	2582	2555	9.3	10.3	10.7	10.8	9.8	9.3	10.05	3.3	3.3	3.2	3.1	2.7	2.3	2.98	6268.01	24334	2821.04	2225.22	35.50
Qinghai	543	548	552	554	557	563	568	573	578	557	3.6	4.1	4.2	4.4	4.1	4.2	4.15	3.9	3.8	3.8	3.8	3.4	3.3	3.67	2101.05	26226	1204.31	970.53	46.19
Tibet	280	285	289	292	296	300	303	308	312	296		2	2.1	1	1.6	1.6	1.6		3.8	4	3.2	2.6	2.5	2.68	807.67	n/a	292.92	61.16	7.57
Ningxia	596	604	610	618	625	633	639	647	654	625	4.4	4.8	4.8	5.2	4.6	4.7	4.75	4.5	4.4	4.4	4.4	4.2	4.1	4.33	2565.06	32097	1264.96	944.5	36.82
Xinjiang	2010	2050	2095	2131	2159	2185	2209	2233	2264	2159	11.1	11.9	11	11.1	11.8	11.9	11.45	3.9	3.8	3.2	3.2	3.4	3.4	3.48	8360.24	33409	3765.97	3024.27	36.17

*"Secondary industry refers to mining and quarrying, manufacturing, production and supply of electricity, water and gas, and construction."

Source: China Statistics Yearbook (2014), aggregated in excel

Table 5. Protests by Location and Year

Region	Protests (2005-2015)											
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Total
	6	**1**	**2**	**4**	**10**	**1**	**4**	**7**	**6**	**6**	**9**	**47**
Guangdong					3		1		2	3	3	**9**
Zhejiang	4						1	2		2		**9**
Fujian		1	1	1	4						1	**7**
Sichuan				1				1	1	1	1	**4**
Hunan	2				2							**4**
Shanghai			1	1				1	1		1	**4**
Jiangsu							1	1				**2**
Yunnan									1			**1**
Liaoning							1					**1**
Jiangxi									1			**1**
Hainan								1				**1**
Guangxi						1						**1**
Shaanxi					1							**1**
Beijing				1								**1**
Tianjin								1			1	**1**
Hebei											0	**0**
Hubei											1	**0**
Inner Mongolia											1	**0**
Shanxi												
Heilongjiang												
Guizhou												
Anhui												
Jilin												
Chongqing												
Shandong												
Henan												
Gansu												
Qinghai												
Tibet												
Ningxia												
Xinjiang												

2015 numbers not included in final totals

Numbers aggregated from Table 2.

Table 6. Protests by Size and Year

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Total
0-100	1				3					1		5
100-999	2	1		3	2		1	1	5	3		18
1,000-9,999	1		1		4	1	1	5	1	2	4	20
10,000+	2		1	1	1		2	1			2	8

2015 numbers not included in final totals

Numbers aggregated from Table 2.

THIS PAGE INTENTIONALLY LEFT BLANK

LIST OF REFERENCES

ABC News. "Hundreds of Chinese Protest against Chemical Plant." May 4, 2013, Online edition. http://www.abc.net.au/news/2013-05-04/hundreds-protest-china-chemical-plant/4670060.

Alameida, Paul D. "Opportunity Organizations and Threat-Induced Contention: Protest Waves in Authoritarian Settings." In *Readings on Social Movements: Origins, Dynamics and Outcomes*, edited by David A. Snow and Doug McAdam, 2nd ed., 106–34. New York: Oxford University Press, 2010.

AsiaNews.it. "CHINA Urban Warfare in Fujian between 10 Thousand Inhabitants and the Police." September 2, 2009. http://www.asianews.it/news-en/Urban-warfare-in-Fujian-between-10-thousand-inhabitants-and-the-police-16210.html.

———. "Residents Take over a Polluted Factory in Zhejiang." July 1, 2005. http://www.asianews.it/news-en/China:-residents-take-over-a-polluted-factory-in-Zhejiang-3620.html.

BBC News. "China Incinerator Plan Cancelled after Protests." April 9, 2015. http://www.bbc.com/news/world-asia-china-32229589.

———. "China Waste Plant Protest in Hangzhou 'Injures Dozens.'" May 11, 2014. http://www.bbc.com/news/world-asia-china-27360779.

———. "Recent High-Profile Mass Protests in China." July 3, 2012. http://www.bbc.com/news/world-asia-china-18684903.

———. "Piecing Together the Maoming Protest." April 2, 2014. http://www.bbc.com/news/blogs-china-blog-26847987.

———. "Protests Flare in Southern Chinese Town of Haimen." Accessed July 17, 2015. http://www.bbc.com/news/world-asia-16276349.

Bloomberg. "China Takes On Pollution With Biggest Changes in 25 Years." April 24, 2014. http://www.bloomberg.com/news/2014-04-24/china-enacts-biggest-pollution-curbs-in-25-years.html.

Bloomberg Business. "Chinese Anger Over Pollution Becomes Main Cause of Social Unrest." March 6, 2013. http://www.bloomberg.com/news/articles/2013-03-06/pollution-passes-land-grievances-as-main-spark-of-china-protests.

Beach, Sophie. "Explosion at PX Plant Reignites Safety Concerns." *China Digital Times (CDT)*, July 30, 2013. http://chinadigitaltimes.net/2013/07/explosion-at-px-plant-reignites-safety-concerns/.

———. “Incinerator Protests Signal New Environmental Consciousness.” *China Digital Times (CDT)*, September 14, 2014. http://chinadigitaltimes.net/2014/09/177177/.

———. “Protesters in Kunming and Chengdu Fight Pollution.” *China Digital Times (CDT)*, May 4, 2013. http://chinadigitaltimes.net/2013/05/protesters-in-kunming-and-chengdu-fight-pollution/.

———. “Residents Protest Garbage Incinerator in Guangdong.” *China Digital Times (CDT)*, November 22, 2009. http://chinadigitaltimes.net/2009/11/residents-protest-garbage-incinerator-in-guangdong/.

Blount, Pauline. “Chinese Farmers Protest Solar Panel Plant Pollution, Haining, 2011 | Global Nonviolent Action Database.” *Global Nonviolent Action Database*, June 10, 2011. http://nvdatabase.swarthmore.edu/content/chinese-farmers-protest-solar-panel-plant-pollution-haining-2011.

———. “Chinese Middle-Class and Farmers Protest Petrochemical Plant in Chengdu.” *Global Nonviolent Action Database*, April 12, 2011. http://nvdatabase.swarthmore.edu/content/chinese-middle-class-and-farmers-protest-petrochemical-plant-chengdu-chengdu-stroll-2008.

———. “Guangzhou Residents Protest Incinerator, 2009.” *Global Nonviolent Action Database*, November 26, 2011. http://nvdatabase.swarthmore.edu/content/guangzhou-residents-protest-incinerator-2009.

Bradsher, Keith. “China’s Incinerators Loom as a Global Hazard.” *New York Times*, August 12, 2009, sec. Business / Energy & Environment. http://www.nytimes.com/2009/08/12/business/energy-environment/12incinerate.html.

———. “Chinese City Suspends Factory Construction Following Protests.” *New York Times*, July 3, 2012. http://www.nytimes.com/2012/07/04/world/asia/chinese-city-suspends-factory-construction-following-protests.html.

Branigan, Tania. “Anti-Pollution Protesters Halt Construction of Copper Plant in China.” *Guardian*. July 3, 2012. http://www.theguardian.com/world/2012/jul/03/china-anti-pollution-protest-copper.

———. “Chinese Citizens Set to Launch First Ever Environmental Lawsuit against Government.” *Guardian*. July 31, 2009. http://www.theguardian.com/environment/2009/jul/31/china-residents-prosecute-government-environment.

Brook, Timothy, and B. Michael Frolic, eds. *Civil Society in China*. Studies on Contemporary China. Armonk, N.Y: M.E. Sharpe, 1997.

Buckley, Chris. "In Southern China, Residents Wary of the Government Protest a Plan to Burn Waste." *New York Times*, September 14, 2014. http://www.nytimes.com/2014/09/15/world/asia/plan-to-burn-waste-brings-protests-in-southern-china.html.

Caixiong, Zheng. "Refining Giant: Sinopec Links with Kuwait Petroleum." *China Daily*. June 30, 2014. http://www.chinadaily.com.cn/cndy/2014-06/30/content_17623027.htm.

Chan, Minnie. "Villagers angry at losing Jiangmen uranium plant deal." *South China Morning Post*. July 14, 2013. http://www.scmp.com/news/china/article/1282144/villagers-angry-losing-jiangmen-uranium-plant-deal.

Chen, Xi. *Social Protest and Contentious Authoritarianism in China*. Cambridge University Press, 2014.

Chin, Josh. "China Scraps Uranium Processing Plan after Protest." *Wall Street Journal*, July 13, 2013, sec. World. http://www.wsj.com/news/articles/SB10001424127887324879504578602952150539208?mg=reno64-wsj&url=http%3A%2F%2Fonline.wsj.com%2Farticle%2FSB10001424127887324879504578602952150539208.html.

China Digital Times (CDT). "About China Digital Times—China Digital Times (CDT)." Accessed August 7, 2015. http://chinadigitaltimes.net/about/.

"China Statistical Yearbook-2014." Accessed July 16, 2015. http://www.stats.gov.cn/tjsj/ndsj/2014/indexeh.htm.

China Story. "NIMBY Protests: A Timeline of NIMBY Protests." Accessed July 10, 2015. https://www.thechinastory.org/yearbooks/yearbook-2013/forum-land-law-and-protest/nimby-protests/.

China.org.cn. "Chemical Plant Boss Held over Sudden Deaths." August 3, 2009. http://www.china.org.cn/environment/news/2009-08/03/content_18253670.htm.

China.org.cn. "People vs. Chemical Plant." January 14, 2008. http://www.china.org.cn/english/environment/239503.htm.

Chinadialogue. "中外对话 | Chinadialogue—China and the Environment." Accessed August 7, 2015. https://www.chinadialogue.net/.

Chinadialogue. "相关 | About." Accessed August 7, 2015. https://www.chinadialogue.net/static/about.

Chun, Zhang. "Residents of SW China City Protest against Foul Air." *Chinadialogue*, April 15, 2015. https://www.chinadialogue.net/blog/7844-Residents-of-SW-China-city-protest-against-foul-air/en.

Cody, Edward. "China's Rising Tide of Protest Sweeping Up Party Officials." *Washington Post*, October 12, 2005. http://www.washingtonpost.com/wp-dyn/content/article/2005/09/11/AR2005091101681_pf.html.

Datta, Souvid. "Photographs of China's 'Cancer Villages.'" *VICE*, January 15, 2015. http://www.vice.com/read/photographs-of-chinas-cancer-villages.

Deng, Yanhua, and Kevin J. O'Brien. "Relational Repression in China: Using Social Ties to Demobilize Protesters." *China Quarterly* 215 (September 2013): 533–52. doi:10.1017/S0305741013000714.

Dingfei, Yan. "Shifang Deadlock Is a 'National Problem' for China." *Chinadialogue*, November 10, 2014. https://www.chinadialogue.net/article/show/single/en/7470-Shifang-deadlock-is-a-national-problem-for-China.

Distancefromto.net. "Distance Between China Cities." Accessed July 18, 2015. http://www.distancefromto.net/cities/China.

Dyke, Nella Van, and Sarah A. Soule. "Structural Social Change and the Mobilizing Effect of Threat: Explaining Levels of Patriot and Militia Organizing in the United States." In *Readings on Social Movements: Origins, Dynamics and Outcomes*, edited by Doug McAdam and David A. Snow, 2nd ed., 38–54. New York: Oxford University Press, 2010.

EastSouthWestNorth. "Southern Metropolis Daily Coverage of Panyu Garbage Incinerator Protest." November 23, 2009. http://www.zonaeuropa.com/20091123_1.htm.

Economist. "All Change." December 10, 2011. http://www.economist.com/node/21541448.

———. "Beneath the Glacier." April 12, 2014. http://www.economist.com/news/china/21600747-spite-political-clampdown-flourishing-civil-society-taking-hold-beneath-glacier.

———. "The Other Moore's Law." February 12, 2009. http://www.economist.com/node/13063306.

———. "Uncivil Society." August 22, 2015. http://www.economist.com/news/china/21661819-new-draft-law-spooks-foreign-not-profit-groups-working-china-uncivil-society.

———. “Volatile Atmosphere.” April 4, 2014. http://www.economist.com/blogs/analects/2014/04/environmental-protest-china.

Economy, Elizabeth C. “China Wakes Up to Its Environmental Catastrophe.” *Bloomberg Business*, March 13, 2014. http://www.businessweek.com/articles/2014-03-13/china-wakes-up-to-its-environmental-catastrophe.

———. “The Great Leap Backward? The Costs of China’s Environmental Crisis.” *Foreign Affairs*, September 1, 2007.

———. *The River Runs Black: The Environmental Challenge to China’s Future, Second Edition*. Cornell University Press, 2004.

Elleman, Bruce A. *Modern China: Continuity and Change 1644 to the Present*. Upper Saddle River, N.J: Prentice Hall, 2010.

Facts and Details. “Environmental Protests in China.” January 2014. http://factsanddetails.com/china/cat10/sub66/item1895.html#chapter-2.

Fan, Yang. “Crowd Protests Planned Incinerator in China’s Guangdong Province.” Translated by Luisetta Mudie. *Radio Free Asia*, August 29, 2013. http://www.rfa.org/english/news/china/crowd-08292013112642.html.

Fan, Yang, and Lai-see Grace Kei. “Six Held After Pollution Protests in Two Chinese Provinces.” Translated by Luisetta Mudie. *Radio Free Asia*, September 17, 2014. http://www.rfa.org/english/news/china/protests-09172014162435.html.

Fan, Yang, and Rachel Vandenbrink. “Dozens Held Over Violent Waste Incinerator Protest in Eastern Chinese City.” Translated by Shiny Li and Ping Chen. *Radio Free Asia*, May 12, 2014. http://www.rfa.org/english/news/china/incinerator-05122014190643.html.

Fan, Yang, and Wen Yuqing. “Thousands Protest High Cancer Rates Linked to Pollution in China’s Tianjin.” Translated by Luisetta Mudie. *Radio Free Asia*, May 27, 2015. http://www.rfa.org/english/news/china/pollution-05272015150247.html.

Fei, Deng. “China’s Cancer Villages.” *Google Maps*. Accessed July 27, 2015. https://www.google.com/maps/d/viewer?mid=zoltdQ3AnjHQ.kJGsxnMyxV3c&hl=en_US.

Fei, Xin. “Shanghai Police Brutalize Property Owners with Pepper Spray and Tear Gas.” *Reposted from The Epoch Times*, December 3, 2007. http://infowars.net/articles/december2007/031207Shanghai.htm.

Free Republic. “Toxic Waste Sparks Violent Protest at China Factory(battery Maker).” August 22, 2005. http://www.freerepublic.com/focus/f-news/1468064/posts.

French, Howard W. “Anger in China Rises Over Threat to Environment.” *New York Times*, July 19, 2005. http://www.nytimes.com/2005/07/19/world/asia/anger-in-china-rises-over-threat-to-environment.html.

Friends of Nature. “About.” Accessed August 8, 2015. http://www.fon.org.cn/index.php/en/post/id/1114.

———. “自然之友—真心实意，身体力行.” Accessed August 8, 2015. http://www.fon.org.cn/index.php/Index/post/id/26.

Geall, Sam. “Why I Don’t Protest against My Local Waste Incinerator.” *Chinadialogue*, September 6, 2014. https://www.chinadialogue.net/blog/7028-Why-I-don-t-protest-against-my-local-waste-incinerator/en.

Geall, Sam, and Isabel Hilton, eds. *China and the Environment: The Green Revolution*. Asian Arguments. London: Zed Books, 2013.

Gilboy, George J., and Eric Heginbotham. “China’s Coming Transformation.” *Foreign Affairs*, July 2001. https://www.foreignaffairs.com/articles/asia/2001-07-01/chinas-coming-transformation.

Goldman, Merle, and Roderick MacFarquhar, eds. *The Paradox of China’s Post-Mao Reforms*. Harvard Contemporary China Series 12. Cambridge, Mass: Harvard University Press, 1999.

“Green Beagle Institute.” Accessed August 8, 2015. http://www.bjep.org.cn/Home/IndexEn.

Grigg, Angus. “What Happened to China’s Powerful Bloggers?” *Australian Financial Review*. Accessed July 14, 2015. http://www.afr.com/technology/social-media/how-china-stopped-its-bloggers-20150703-gi34za.

Guangwei, He. “China’s Dirty Secret: The Boom Poisoned Its Soil and Crops.” EJournal. *Yale Environment 360*, June 30, 2014. http://e360.yale.edu/feature/chinas_dirty_pollution_secret_the_boom_poisoned_its_soil_and_crops/2782/.

Hao, Tang. “Shifang: A Crisis of Local Rule.” *Chinadialogue*, July 18, 2012. https://www.chinadialogue.net/article/5049-Shifang-a-crisis-of-local-rule.

Harden, Blaine. “Japan Stanches Stench of Mass Trash Incinerators.” *The Washington Post*, November 18, 2008, sec. World. http://www.washingtonpost.com/wp-dyn/content/article/2008/11/17/AR2008111702968.html.

Hartzell, Matt. “Maps: China’s Uneven Economic Development | Matt Hartzell’s China Blog.” *Matt Hartzell’s China Blog*, September 11, 2013. http://matthartzell.blogspot.com/2013/09/chinas-economic-disparityin-maps.html.

Henochowicz, Anne. “Shifang: A Study in Contrasts.” *China Digital Times (CDT)*, July 6, 2012. http://chinadigitaltimes.net/2012/07/shifang-a-study-contrasts/.

Ho, Peter. “Greening Without Conflict? Environmentalism, NGOs and Civil Society in China.” *Development and Change* 32, no. 5 (November 1, 2001): 893–921. doi:10.1111/1467-7660.00231.

Ho, Peter, and Richard Louis Edmonds. “Perspectives of Time and Change: Rethinking Embedded Environmental Activism in China.” *China Information* 21, no. 2 (July 1, 2007): 331–44. doi:10.1177/0920203X07079649.

HowManyHours.com. “Flying Distance between Hainan and Beijing.” Accessed July 18, 2015. http://www.howmanyhours.com/flight_distance/hainan/beijing.php.

Huang, Philip C. C. “‘Public Sphere’/‘Civil Society’ in China?: The Third Realm between State and Society.” *Modern China* 19, no. 2 (April 1, 1993): 216–40.

Jacobs, Andrew. “Chinese Chemical Plant Site Moves After Outcry.” *New York Times*, January 15, 2009. http://www.nytimes.com/2009/01/15/world/asia/15fujian.html.

———. “Rare Protest in China Against Uranium Plant Draws Hundreds.” *New York Times*, July 12, 2013. http://www.nytimes.com/2013/07/13/world/asia/rare-china-protest-against-uranium-plant-draws-hundreds.html.

Jianqiang, Liu. “China’s New ‘Middle Class’ Environmental Protests.” *ChinaFile*, January 2, 2013. http://www.chinafile.com/chinas-new-middle-class-environmental-protests.

Jing, Chai. *Under the Dome—Investigating China’s Smog*. Video—YouTube, 2015. https://www.youtube.com/watch?v=T6X2uwlQGQM.

Jing, Lin. “Dozens Injured, 10 Detained in Clashes Over Waste Plant in China’s Hebei.” Translated by Luisetta Mudie. *Radio Free Asia*, July 2, 2015. http://www.rfa.org/english/news/china/dozens-injured-10-detained-in-clashes-over-waste-plant-in-hebei-07022015104948.html.

Jing, Lin, and Yang Fan. “Thousands Protest, Riot in China’s Sichuan After Coking Plant Leak.” Translated by Luisetta Mudie. *Radio Free Asia*, April 14, 2015. http://www.rfa.org/english/news/china/leak-04142015103014.html.

Jin, Wu. “Suspended Xiamen PX Project May Restart in Zhangzhou.” *China.org.cn*, January 13, 2009. http://www.china.org.cn/environment/news/2009-01/13/content_17101597.htm.

Johnson, Ian. “Hu Jintao Takes U.S. a Message of Harmony.” *New York Times*, January 18, 2011, sec. World / Asia Pacific. http://www.nytimes.com/2011/01/19/world/asia/19hu.html.

Johnson, Thomas. "The Health Factor in Anti-Waste Incinerator Campaigns in Beijing and Guangzhou." *China Quarterly* 214 (June 2013): 356–75. doi:10.1017/S0305741013000660.

Kahn, Joseph, and Jim Yardley. "As China Roars, Pollution Reaches Deadly Extremes." *New York Times*, August 26, 2007. http://www.nytimes.com/2007/08/26/world/asia/26china.html.

Kissinger, Henry. *On China*, London: Penguin Books, 2012.

Kurtenbach, Elaine. "Over 500 Villagers Protest China Factory Pollution." *U-T San Diego*, September 18, 2011. http://www.utsandiego.com/news/2011/sep/18/over-500-villagers-protest-china-factory-pollution/.

———. "Shanghai Residents Protest Maglev Train." *USA Today*, January 14, 2008. http://usatoday30.usatoday.com/news/world/2008-01-14-3865316371_x.htm.

Lafraniere, Sharon, and Michael Wines. "Plant Protest Shows China's Officials Under Pressure." *New York Times*, August 15, 2011, sec. World / Asia Pacific. http://www.nytimes.com/2011/08/16/world/asia/16dalian.html.

Lam, Oiwan. "China: Guangdong Uprising, Now in Haimen." *Global Voices*, December 20, 2011. http://globalvoicesonline.org/2011/12/20/china-guangdong-uprising-now-in-haimen/.

Lau, Mimi. "10,000 Protest in Chinese City over Planned Coal-Fired Power Plant." *South China Morning Post*. Accessed April 24, 2015. http://www.scmp.com/news/china/article/1765010/10000-protest-chinese-city-over-planned-coal-fired-power-plant.

Lieberthal, Kenneth. *Governing China: From Revolution through Reform*. 2nd ed. New York: W. W. Norton, 2004.

Liguo, Peng, and Gong Junnan. "Will the Chinese Public Be Persuaded That PX Factories Are Safe?" *Chinadialogue*, December 8, 2013. https://www.chinadialogue.net/article/show/single/en/6280-Will-the-Chinese-public-be-persuaded-that-PX-factories-are-safe-.

Lim, Louisa. "China Tries to Calm Dam Protests." *BBC News*. November 18, 2004, sec. Asia-Pacific. http://news.bbc.co.uk/2/hi/asia-pacific/4021901.stm.

Ling, Wei, and Wen Yuqing. "No Sign of Early End to Shanghai Protest Over Planned PX Plant." Translated by Luisetta Mudie. *Radio Free Asia*, June 26, 2015. http://www.rfa.org/english/news/china/plant-06262015133144.html.

Linlin, Liu. "Japanese Paper Factory Center of Protest." *Global Times*, July 27, 2012. http://www.globaltimes.cn/content/723643.shtml.

Long, Qiao, Luo Bote, and Ren Ji. "Dozens Held After Pollution Protests in China's Inner Mongolia." Translated by Luisetta Mudie. *Radio Free Asia*, April 6, 2015. http://www.rfa.org/english/news/china/mongolia-protest-04062015103918.html.

Ma, Damien. "China's 20 Percent Problem." *Foreign Affairs*, August 25, 2015. https://www.foreignaffairs.com/articles/china/2015-08-25/chinas-20-percent-problem.

McAdam, Doug, and David A. Snow, eds. *Readings on Social Movements: Origins, Dynamics and Outcomes*. 2nd ed. New York: Oxford University Press, 2010.

McGarrity, John. "Thousands Join Demo against Guangdong Coal-Fired Power Plant." *Chinadialogue*, April 13, 2015. https://www.chinadialogue.net/blog/7843--Thousands-join-demo-against-Guangdong-coal-fired-power-plant-/en.

McKirdy, Euan. "One Country Two Systems: How Hong Kong Remains Separate." *CNN*, September 30, 2014. http://www.cnn.com/2014/09/29/world/asia/hong-kong-protest-backgrounder/index.html.

Nan, Hai, Wong Lik, and Yang Fan. "Police Detain 'At Least 10' in Clashes With Pollution Protesters in China's Guangdong." Translated by Luisetta Mudie. *Radio Free Asia*, April 15, 2015. http://www.rfa.org/english/news/china/clashes-04152015102825.html.

New Energy and Environment Digest. "Panyu Residents Victorious in Blocking Planned Incinerator, Expected to Meet 30% Recycling Target in Return." December 12, 2009. http://needigest.com/2009/12/12/panyu-residents-victorious-in-blocking-planned-incinerator-expected-to-meet-30-recycling-target-in-return/.

New Tang Dynasty Television "Thousands Protest Waste-Incineration Power Plant in Eastern China." April 14, 2011. http://www.ntd.tv/en/news/china/20110414/63020-thousands-protest-wasteincineration-power-plant-in-eastern-china.html.

New York Times. "Map: Protests Over Large Projects." November 6, 2012. http://www.nytimes.com/interactive/2012/11/06/business/Protests-Over-Large-Projects.html?ref=global.

———. "Xi Jinping." Accessed August 6, 2015. http://topics.nytimes.com/top/reference/timestopics/people/x/xi_jinping/index.html.

O'Brien, Kevin J. "Rightful Resistance Revisited." *Journal of Peasant Studies* 40, no. 6 (November 2013): 1051–62. doi:10.1080/03066150.2013.821466.

"Particle Pollution (PM)." Accessed August 28, 2015. http://www.airnow.gov/index.cfm?action=aqibasics.particle.

Pearce, Fred. "As China's Pollution Toll Grows, Protesters and Media Push Back." EJournal. *Yale Environment 360*, March 18, 2010. http://e360.yale.edu/feature/as_chinas_pollution_toll_grows_protesters_and_media_push_back/2254/.

"Pearson Correlation Coefficient Calculator." Accessed August 31, 2015. http://www.socscistatistics.com/tests/pearson/Default2.aspx.

Perlez, Jane. "After Qidong Protests, China Cancels Waste Project." *New York Times*, July 28, 2012. http://www.nytimes.com/2012/07/29/world/asia/after-protests-in-qidong-china-plans-for-water-discharge-plant-are-abandoned.html.

Perry, Elizabeth J. "Challenging The Mandate Of Heaven: Popular Protest in Modern China." *Critical Asian Studies* 33, no. 2 (June 2001): 163–80. doi:10.1080/14672710122544.

Pomfret, James. "Hundreds in South China Oppose Waste Incinerator." *Reuters*, November 23, 2009. http://www.reuters.com/article/2009/11/23/us-china-environment-incinerator-idUSTRE5AM0JS20091123.

Poncet, Sandra, and Nong Zhu. "Country People Moving to the Cities: The Migratory Dynamic." *China Perspectives*, no. 62 (December 1, 2005). http://chinaperspectives.revues.org/547.

Xinhua. "Protest against Suspected Lead Pollution Continues in E China English." September 18, 2009. http://news.xinhuanet.com/english/2009-09/18/content_12076135.htm.

"Protests in China: The Cauldron Boils." *Economist*, September 29, 2005. http://www.economist.com/node/4462719.

Qin, Liu. "Govt Assurances on PX Petchem Plants Vapourised after Latest Explosion." *Chinadialogue*, August 4, 2015. https://www.chinadialogue.net/blog/7835-Govt-assurances-on-PX-petchem-plants-vapourised-after-latest-explosion/en.

Ramzy, Austin. "Chinese Environmentalists Lose Fight to Stop Nu River Dams." *Time*. Accessed November 7, 2014. http://world.time.com/2013/02/05/chinese-environmentalists-lose-fight-to-stop-nu-river-dams/.

Ruwitch, John. "Thousands Protest in Shanghai Suburb over Chemical Plant Fears." *Reuters*. June 27, 2015, sec. Industries. http://www.reuters.com/article/2015/06/27/china-protests-idUSL3N0ZD07K20150627.

Schiavenza, Matt. "Mapping China's Income Inequality." *Atlantic*, September 13, 2013. http://www.theatlantic.com/china/archive/2013/09/mapping-chinas-income-inequality/279637/.

Schmitz, Rob. "China's Toxic Harvest: A 'Cancer Village' Rises in Protest." *NPR Marketplace*, April 17, 2013. http://www.marketplace.org/topics/world/chinas-toxic-harvest-cancer-village-rises-protest.

Sevastopulo, Demetri. "China PX Plant Protests Spread to Provincial Capital Guangzhou." *Financial Times*, April 1, 2014. http://www.ft.com/intl/cms/s/0/cf6594fa-b98d-11e3-957a-00144feabdc0.html#axzz3fX7FGVZn.

Shirk, Susan. *China: Fragile Superpower*. Oxford, UK: Oxford University Press, 2008.

Simon, Karla W. *Civil Society in China: The Legal Framework from Ancient Times to the New Reform Era*. New York: Oxford University Press, 2013.

Song, Ligang, and Wing Thye Woo, eds. *China's Dilemma: Economic Growth, the Environment and Climate Change*. Canberra] : [Washington, D.C.] : [Beijing, China: Anu E Press : Asia Pacific Press ; Brookings Institution Press ; Social Sciences Academic Press (China), 2008.

Stalley, Phillip, and Dongning Yang. "An Emerging Environmental Movement in China?" *The China Quarterly* 186 (June 2006): 333–56. doi:10.1017/S030574100600018X.

Stearman, Sam. "China's Migrant Workforce—A Special Report." Personal website. *SamSays*. Accessed July 17, 2015. http://www.samsays.com/SIP-CBA1.htm.

Tang, Didi. "China City Quashes Protest against Petro Plant." *Yahoo News*, May 5, 2013. http://news.yahoo.com/china-city-quashes-protest-against-petro-plant-102654099.html.

———. "China Residents Protest Chemical Factory Expansion." *BostonGlobe*, October 28, 2012, sec. World. https://www.bostonglobe.com/news/world/2012/10/27/china-residents-protest-chemical-factory-expansion/r2YmZn057XctfXShJ95SSI/story.html.

Tao, Anthony. "Villagers Clash With Police Over Proposed Power Plant, Flip Over Vehicles [VIDEO]." *Beijing Cream*, November 22, 2012. http://beijingcream.com/2012/11/villagers-clash-with-police-over-proposed-power-plant-flip-over-vehicles-video/.

Tarrow, Sidney G. *Power in Movement: Social Movements and Contentious Politics*. Rev. & updated 3rd ed. Cambridge Studies in Comparative Politics. Cambridge ; New York: Cambridge University Press, 2011.

Taylor, Alan. "Rising Protests in China." *Atlantic*, February 17, 2012. http://www.theatlantic.com/infocus/2012/2/rising-protests-in-china/100247/.

Thompson, E. P. *Customs in Common: Studies in Traditional Popular Culture*. New York: New Press, 1993.

Traynor, Paul. "Police in Shanghai Remove at Least 3 Busloads of Protesters Who Oppose Rumored Chemical Plant." *AP*. June 27, 2015, Online edition. http://www.usnews.com/news/business/articles/2015/06/27/chinese-city-of-shanghai-stymies-protest-over-chemical-plant.

Tremblay, Jean-Francois. "Chinese Riot Over Pollution." Professional Journal Blog. *Chemical & Engineering News*, April 18, 2005. http://pubs.acs.org/cen/news/83/i16/8316notw6.html.

———. "Tempers Flare In China." Professional Journal News Blog. *Chemical & Engineering News*, September 26, 2005. http://pubs.acs.org/cen/coverstory/83/8339china.html.

Wade, Samuel. "People's Daily Online Editor, Vice President Investigated." *China Digital Times (CDT)*, August 27, 2015. http://chinadigitaltimes.net/2015/08/peoples-daily-online-editor-vice-president-investigated/.

———. "Pipeline Project Cancelled After Protests." *China Digital Times (CDT)*, July 28, 2012. http://chinadigitaltimes.net/2012/07/pipeline-project-cancelled-after-protests/.

———. "Protests Win Written Pledge of Uranium Plant's Cancellation." *China Digital Times (CDT)*. Accessed November 7, 2014. http://chinadigitaltimes.net/2013/07/protests-win-written-pledge-of-uranium-plants-cancellation/.

———. "PX Protests, Hollow Victories and Forced Demolitions." *China Digital Times (CDT)*, November 3, 2012. http://chinadigitaltimes.net/2012/11/px-protests-hollow-victories-and-forced-demolitions/.

———. "Qidong Paper Plant Resumes Production." *China Digital Times (CDT)*, July 31, 2012. http://chinadigitaltimes.net/2012/07/qidong-paper-plant-resumes-production/.

———. "The Long Shadow of 2012's Shifang Protests." *China Digital Times (CDT)*, November 10, 2014. http://chinadigitaltimes.net/2014/11/long-shadow-2012s-shifang-protests/.

Waldmeir, Patti. "China's Pollution Time Bomb Highlighted." *Financial Times*, October 29, 2012. http://www.ft.com/cms/s/0/b02feebe-21d6-11e2-b5d2-00144feabdc0.html#axzz3Y9M3MUmb.

Waldmeir, Patti, Leslie Hook, and Jamil Anderlini. "Ningbo Protest, Response Both Typical of China's Environmental Debate." *Washington Post*, October 29, 2012. http://www.washingtonpost.com/world/asia_pacific/ningbo-protest-response-both-typical-of-chinas-environmental-debate/2012/10/29/ac4c8e5e-21f6-11e2-8448-81b1ce7d6978_story.html.

Walton, John, and David Seddon. *Free Markets & Food Riots: The Politics of Global Adjustment*. Studies in Urban and Social Change. Oxford, UK ; Cambridge, Mass: Blackwell, 1994.

Waste-Cwin.org. "Waste Incineration Information Platform." Accessed August 8, 2015. http://www.waste-cwin.org.

Watts, Jonathan. "Chinese Protesters Confront Police over Incinerator Plans in Guangzhou." *Guardian*, November 23, 2009. http://www.theguardian.com/environment/2009/nov/23/china-protest-incinerator-guangzhou.

———. "Chinese Protesters Return to Streets after Olympics." *Guardian*. August 30, 2008. http://www.theguardian.com/world/2008/aug/31/beijing.pollution.protest.

———. "Controversial Chinese Chemical Plant Believed to Have Resumed Production." *Guardian*, January 13, 2012. http://www.theguardian.com/environment/2012/jan/13/chinese-chemical-plant.

White, Gordon. "Prospects for Civil Society in China: A Case Study of Xiaoshan City." *Australian Journal of Chinese Affairs*, no. 29 (January 1, 1993): 63–87. doi:10.2307/2949952.

Wikipedia. "List of Chinese Provinces and Regions—Wikitravel." Accessed July 18, 2015. http://wikitravel.org/en/List_of_Chinese_provinces_and_regions.

Wong, Edward. "In China City, Protesters See Pollution Risk of New Plant." *New York Times*, May 6, 2008, sec. International / Asia Pacific. http://www.nytimes.com/2008/05/06/world/asia/06china.html.

Wong, Gillian. "China Major Protest Demands Halt to Planned Coal-Fired Power Plant." *World Post*. December 20, 2011. http://www.huffingtonpost.com/2011/12/20/china-major-protest_n_1160033.html.

Worldwatch Institute. "Villagers Attack Factories over Pollution in Eastern China." Accessed July 10, 2015. http://www.worldwatch.org/villagers-attack-factories-over-pollution-eastern-china.

Xiaodong, Bao, and Yang Guoyao. "Locals Attack Factory in South-East China after Child Lead Poisonings." *Chinadialogue*, February 10, 2014. https://www.chinadialogue.net/article/show/single/en/7363-Locals-attack-factory-in-south-east-China-after-child-lead-poisonings.

Xin, Liu. "Luoding Local Government Revokes Waste Incineration Project Permit." *Global Times*, April 9, 2015, sec. Society. http://globaltimes.cn/content/915930.shtml.

Xinzhen, Lan. "The Maglev Dispute." *Beijing Review*, June 24, 2010. http://www.bjreview.com.cn/quotes/txt/2010-06/23/content_280715.htm.

Yang, G., and C. Calhoun. "Media, Civil Society, and the Rise of a Green Public Sphere in China." *China Information* 21, no. 2 (July 1, 2007): 211–36. doi:10.1177/0920203X07079644.

Yan, Wang. "Actions Speak Louder." *NewsChina*, July 2015. http://www.newschinamag.com/magazine/actions-speak-louder.

———. "A Nasty Necessity." *NewsChina*. Accessed August 28, 2015. http://www.newschinamag.com/magazine/a-nasty-necessity.

Yardley, Jim. "A Hundred Cellphones Bloom, and Chinese Take to the Streets." *The New York Times*, April 25, 2005. http://www.nytimes.com/2005/04/25/world/asia/a-hundred-cellphones-bloom-and-chinese-take-to-the-streets.html.

Ying, Xie. "All Bark, No Bite." *NewsChina*. Accessed August 28, 2015. http://www.newschinamag.com/magazine/all-bark-no-bite.

Yong, Liu. "Hundreds of Villagers in China Riot against Polluting Factory—China Digital Times (CDT)." *China Digital Times (CDT)*, June 20, 2005. http://chinadigitaltimes.net/2005/06/hundreds-of-villagers-in-china-riot-against-polluting-factory/.

Yuqing, Wen, Xin Lin, and Yang Fan. "Police Hold 21 After Waste Plant Protest in China's Guangdong." Translated by Luisetta Mudie. *Radio Free Asia*, September 15, 2014. http://www.rfa.org/english/news/china/waste-09152014142610.html.

Yu, Xin, and Fung Yat-yiu. "Clashes Trigger Lockdown." Translated by Luisetta Mudie. *Radio Free Asia*, October 22, 2012. http://www.rfa.org/english/news/china/hainan-10222012105257.html.

Zeng, Candy. "Green Challenge to China's Mega-Projects." *Asia Times Online Ltd*. March 20, 2008, Online edition, sec. China Business. http://www.atimes.com/atimes/China_Business/JC20Cb01.html.

Zhang, Joy Yueyue, and Michael Barr. *Green Politics in China: Environmental Governance and State-Society Relations*. London: Pluto Press, 2013.

Zhang, Liang, Andrew J. Nathan, and E. Perry Link. *The Tiananmen Papers*. New York: Public Affairs, 2002.

Zhu, Winnie. "China Approves $5 Billion Sinopec-Kuwait Oil Project." *Bloomberg*, December 4, 2007. http://www.bloomberg.com/apps/news?sid=aP3B6lsQZ3QA&pid=newsarchive.

THIS PAGE INTENTIONALLY LEFT BLANK

INITIAL DISTRIBUTION LIST

1. Defense Technical Information Center
   Ft. Belvoir, Virginia

2. Dudley Knox Library
   Naval Postgraduate School
   Monterey, California